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1950
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Letters to the Editor

Rochester, N. Y.
November 1, 1949

TO THE EDITOR:

There is probably a good reason for it but several of the local boys have expressed a lot of dissatisfaction about receiving two or three issues of the JOURNAL in the same month. I know for a fact that the August issue was received three weeks earlier by some people than others.

CHESTER W. WHEELER, Hob. PSA

The fault lies with the Post Office: all copies of the JOURNAL are delivered to the Post Office within a day or two at the most.

Williamstown, Mass.
October 24, 1949

TO THE EDITOR:

In reply to your "Editor's Note" on page 576 of the October issue of the JOURNAL, I would like to see the Territorial columns continued. Also the Folio.

LEE RIDGWAY

New Britain, Conn.
October 26, 1949

TO THE EDITOR:

The last issue of the PSA JOURNAL on page 576 contained a note that some members wanted the Territorial Columns to be discontinued.

By no means. I like those columns. They

are newsy, right from our own part of the country, and written by men who know their section from the photographic point of view.

F. L. ENGEL

Cincinnati 23, Ohio
October 31, 1949

TO THE EDITOR:

You have asked for the opinions of the readers on discontinuing the territorial columns. Yes. For the most part territorial editors spread syntax for the glorification of a few; and again for the most part, nobody outside the territory cares. The space could better be used for display advertising.

ELIOT WESTLAKE

Milwaukee 2, Wis.
November 2, 1949

TO THE EDITOR:

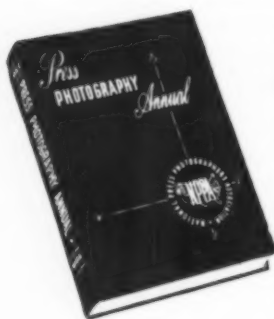
And—put in my vote for a continuance of the Territorial News in the JOURNAL. I like the personal touch that it gives to the publication.

RAY MESS, APSA

Houghton, Mich.
November 1, 1949

TO THE EDITOR:

No, no, no, no, don't discontinue the (Turn to page 586)



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territorial columns. They are one of the most interesting parts of the JOURNAL. There are lots of good ideas to be gleaned from those columns for club activities and then they give one a feeling of belonging to the Society—that is you get to know other people through them, and to my mind I think they help knit the Society together. The JOURNAL is the only place where some members can get acquainted with others; everyone can't go to conventions but the territorial columns make a good substitute for conventions as far as getting acquainted goes. So I hereby send in my vote to keep them.

FLORENCE M. MCGEE

Many letters have been received from members discussing the value of the Territorial Columns. Should they be continued? What do you think?

BOOK REVIEWS

MAKING EFFECTIVE PHOTOGRAPHS, by L. Whitney Standish, FPSA, The Camera Magazine, 306 North Charles St., Baltimore 1, Md., 208 pages, 6 x 9, cloth, illustrated, \$4.95, October 1949.

Some photographers can do a pretty good job of feeling the excellence, both esthetic and technical, of the pictures they make. Others have to learn the hard way, by study and by trial and error. Both will benefit by reading this helpful volume because it explains not only "how" but "why."

One entire chapter is dedicated to "Time Out to Think." Actually, the whole book presents photographic philosophy as well as practice. The author works on his stated theory that "good pictures stem from the spirit inside the artist," and proceeds to reveal to the reader how to transfer that spirit to print paper. Furthermore, the author suggests many methods and many media for transforming a print from an ordinary photograph into a work of art productive of emotional reactions.

For the serious photographer, this volume is both good reading and informative textbook. The six chapters of its first part present "the description and application of a working method designed to help the photographer produce more effective pictures." The 10 chapters of the second part comprise "a discussion of the principles of subject selection, composition, and design on which good and effective pictures are dependent—together with illustrations of the practical applications of such principles."

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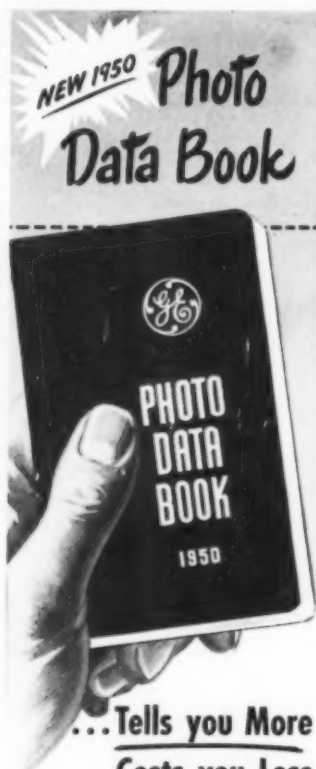
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BOOK REVIEWS

FREE-LANCE JOURNALISM WITH A CAMERA, by Rufus H. Mallinson, Transatlantic Arts, Inc., Forest Hills, L. I., N. Y., 124 pages, 5 x 7 1/4, illustrated, cloth, 1948, \$2.25.

This fourth edition of a book helpful to those who wish to undertake journalism with the camera, or only to sell their photographs, covers the subject broadly from developing ideas to developing markets. It is written-to-order for those amateurs who, having learned to use their expensive equipment, are thinking of asking it to produce cash returns.

Amateurs, thinking of photo-journalism in terms of extensive press equipment, will be surprised and delighted to discover how the author, initially lacking both equipment and cash, made saleable photographs with no difficulty. The author was, however, well equipped with ambition and know-how, and the latter attribute generously is shared with the reader in this little volume. Admittedly, the book is British in tone and background, but also is readily applicable to American practices and possibilities.

May Be Purchased from PSA JOURNAL

THE ART OF PHOTOGRAPHING CHILDREN, by Frank and Molly Partington, Transatlantic Arts, Inc., Forest Hills, L. I., N. Y., 80 pages, 7 1/4 x 10 1/4, illustrated, cloth, \$3.25.

Frank and Molly Partington have the happy faculty of making pictures first and then calling them, somewhat deflatedly, portraits. Virtually all the numerous reproductions of their photographs published in this fascinating book would serve equally well as salon shots, portraits, documentaries of childhood, news pictures, illustrations, or what-not—chiefly because they are, as the Partingtons planned, real pictures.

The comprehensive text covers every important phase of child photography, including that essential, the psychology of children and their pictures. There's much about darkroom layout and types of developer, but much, much more about how to get into the frame of mind which assures cooperation from the subject and, resultingly, a good child picture.

"We are after pictures which have appeal and compel others to look," explain the authors, who started by photographing their own child—and kept right on. They say that successful pictures are made by (1) removing distracting objects, (2) selecting the proper background, and (3) arranging tones so that the result is purely photographic.

By and large, this is a simple, interesting book which informs rather than awes the reader. For good measure, it presents a large number of Partington pictures, from which the aspiring amateur can learn, and learn well. Even those photographers who regard all children as brats may change their enlightened minds after reading this book!

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BOOK REVIEWS

THE COMPLETE BOOK OF ENLARGING, by Morris Gurrie, Midland Publishers, 1025 Beloit Ave., Forest Park, Ill., 256 pages, cloth, illustrated, \$3.95, September 1949.

In 17 chapters embellished by more than 150 illustrations Morris Gurrie, of Chicago's School of Photography and Fort Dearborn Camera Club, passes on to others the gleanings of 30 years of experience in making photographic prints. He says the serious photographer must insist upon making his own prints, and then proceeds to explain the technique in detail.

This volume is rich in advice, information, suggestions, techniques, and other essential data, from designing and equipping the darkroom to finishing the print. There are way-stops, during which the author explains the routine of enlarging, the technique of print development, and gives many little hints and suggestions which, unimportant in themselves and often overlooked, still contribute helpfully to the satisfactory end-product.

In the course of the book the author, quite naturally, gets around to that old favorite, composition, and while some readers may protest that this deep subject is given rather shallow treatment, they will discover that coverage, while brief, is thorough. Gurrie gives the essentials, as he

does so well throughout the book. Anyone who wants to delve deeper, may do so.

Some of the many and helpful illustrations comprise photographs made at the New York World's Fair, which caused amateurs to exude blood, sweat, and tears long before Churchill. The pictures, being of the "do-and-don't" and "before-and-after" types generously augment the teachings of the book, which well—and honestly—supports its title.

May Be Purchased from PSA JOURNAL

SKYSHOOTING, Hunting the Stars With Your Camera, by R. Newton and Margaret L. Mayall, The Ronald Press Co., 15 East 26th St., New York 10, 174 pages, 6 x 9, illustrated, cloth, 1949, \$3.75.

Any amateur who wants to be a "complete" photographer had better get this book right now and start his skyshooting. However, he'll discover that R. Newton and Margaret L. Mayall have a way about them, and while the reader may think he's going to start and stop with star trails, the next thing he knows these authors are going to lead him on to aurorae, meteors, stars, variable stars, new stars, comets, clusters, nebulae, the sun, the moon, and the planets. Before he's through the book he will find himself interested in astronomy, stereoscopy, and other sciences; building equatorial mountings; attaching his camera

to a telescope; keeping records; corresponding with scientists; fraternizing with Mars, Jupiter, Venus, and Saturn!

In other words, the Mayalls can take a nice, innocent, ignorant amateur with a box camera, expose him to some star trail pictures, lead him through a few intriguing pages of text, and transform him into an amateur scientist who scarcely can wait until the sun sets and Venus starts winking at him. In fact, he probably won't wait until the sun sets; he'll be photographing sunspots in broad daylight.

If anyone should tell the average photographer that the nebula in Orion make excellent subjects, his reaction might be rather violent. However, after reading the Mayalls, such violence quite likely would be transformed into enthusiasm. Stardust, that does it!

Not only does this husband-and-wife camera team tell the amateur what he can do with simple equipment in photographing stars and other subjects in the sky, but they tell him how to do it, and make it all sound so simple and fascinating! One of the catches is that an amateur apparently can set his pocket camera on a pile of books some evening, shoot what he thinks is a bunch of star trails, develop the film for contrast in Rodinal and water—and come up with a picture of scientific interest and value which the observatories—even Palomar!—have missed. From then on, the sky certainly is the limit!

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PICTORIAL

There'll Be Some Changes Made!

BY GEORGE HORN AND VICTOR H. SCALES, HON.PSA

PHOTOGRAPHY would be easier, and less challenging, if every click of the shutter produced a perfect negative yielding a satisfactory straight print. Actually, that happens about once in a thousand times, or more; certainly with an infrequency which refutes the argument that photography is purely mechanical.

Indeed, there's many a slip between the multiple operations which lead from negative to positive, from subject to finished print. Even when the slips are eliminated, there's the matter of handling and treatment to be considered, and there'll be some changes made. The single eye of the camera has an annoying way of emphasizing the objectionable and of ignoring the favorable aspects of scenes and subjects. Since photography no longer is a process merely of recording, but includes broad possibilities of interpretation, control becomes essential. Perfect negatives and straight prints are admirable objectives, but the world pays off on satisfactory photographs.

The \$64 question naturally is: What is a satisfactory photograph? Basically, the satisfactory photograph is the one which does its specific job well. Then there is the superior photograph which does its job supremely well. Now the question arises as to what makes a photograph either satisfactory or superior.

For the moment ignoring subject matter, composition, lighting, treatment and other esthetic phases of a picture, consider what distinguishes the photograph from other works of art. Painting has line and color. Sculpture has form and depth. Other art media have their peculiar attributes. The black-and-white photograph has neither line, nor color, nor form, nor depth. Yet it has a tremendously rich asset—*tone*. Indeed, it has tones—and many of them. The satisfactory photograph, therefore, may be said to be that which incorporates tones with tonal homogeneity. That is, it possesses that multiplicity or richness of tones, harmoniously related, which makes a photograph a photograph.

Many of the tones inherent in scene or subject matter are captured by the negative. The tonal scale of print paper, however, is not yet capable of reproducing all these tones. Some—and usually too many—are lost. So long as print paper remains incapable of reproducing all these subtle tones, and tonal gradations, steps must be taken to replace them in the finished photograph, and to this end photography continues to demand skill and artistry.

How to Overcome Negative Difficulties and Make Prints Positively Wonderful!

Black at one extreme and white at the other can produce pictures acceptable under circumscribed conditions. Silhouettes, for instance, and wood-block prints are accepted as works of art. Much more is expected of the photograph. Among the expectations is a relatively long range of tones, properly graduated, effectively related.

In other words, tones *make* the photograph. A multiplicity of harmonious tones is essential to the satisfactory photograph. And while the excellence of any photograph scarcely can be judged by counting the number of tones, it is evident that the superior pictures incorporate this desirable multiplicity.

There may be argument here that high-key and low-key prints are exceptions. This argument holds only to the degree that such prints *appear* to have fewer tones. Even satisfactory high-key and low-key prints must incorporate an adequate range of tones. The subtle gradations may not be noticed at first glance, yet study will disclose that even these so-called short-scale prints depend for quality, if they have it, upon gradual changes in tones from black-black to white-white.

Present dissatisfaction with television, for instance, may be ascribed to the misfortune that televised images are, like old-fashion motion pictures, either too flat or too contrasty to be pleasing to some eyes. There is lack of tonal richness, an absence of those subtle gradations which, unimportant in themselves, still contribute quality to the whole. Modern motion pictures have good tonal quality. Television undoubtedly will improve in time.

Those who have difficulty in finding these subtle gradations in the photograph, as will be the case with many beginning photographers, may make some progress by comparing a black-and-white checkerboard with a photographic gray scale. The checkerboard presents the extremes of contrast. It has terrific impact, yet quickly tires the eyes. The gray scale, like the checkerboard, has black-black and white-white, yet in between are tonal steps, properly and harmoniously related. Because of these intermediate steps the black *looks* less black, the



VARIATIONS ON HOGARTH'S CURVE

P. H. OELMAN EPSA



white less white. Yet both are of exactly the same tonal intensity as on the checkerboard.

Prints made by beginning photographers frequently reveal the unpleasant tonal abruptness of the checkerboard. In order to incorporate the pleasing multiple gradations of the gray scale, the photograph's lost tonal riches must be replaced, recaptured, or simulated. Thus modification becomes mandatory. Whether modification is undertaken in the negative or in the positive stage is the photographer's choice. Those equipped with experience, ability, and nimble fingers may elect to work on the negative. The run-of-the-mill photographer may prefer to work on the less fragile and more readily replaced print. There are photographers who modify both negative and print. Also, there is a school of thought in photography, known as the purist, which purports to refuse to lay the impious hands of alteration upon either negative or positive, believing that so to do would destroy originality, create artificiality.

One of the attractive aspects of photography is that the photographer may do—or refrain from doing—anything he chooses. The world asks only that he end up with a satisfactory photograph. How it got that way is, by and large, the photographer's own business. As a purist, he can expose a million negatives until he produces the satisfactory straight print. Or, limited as to time, funds, and energy, he can employ methods of modification.

Modification means, simply, extending or shortening the tonal scale of the print for purposes of improvement. Objective is production of the satisfactory photograph by the easiest and most direct route. Purpose is purely the correction of unavoidable shortcomings. Neither the purpose nor the objective of modification is imitation of non-photographic media, nor so-called artistic treatment, nor subterfuge, nor attempted correction of irremediable errors which never should have been made. Modification can serve these ends too, if desired, but its primary purpose is to serve the photographer as one more useful tool, and as a form of control.

The possibilities of print modification are limited. The best that can be expected is a fair print from a poor negative, good print from a fair negative, and an excellent print from a good negative. Indeed, the limitations of modification necessitate respect for certain fundamental principles. There is no substitute for a good negative. Modification must be minimized. If the method of modifying the print remains obvious, the photograph still is unsatisfactory. Confucius is said to have remarked that he who would be immoral, yet preserve his reputation, first should learn to walk in the snow without leaving tracks. There is nothing immoral about print modification, yet he who attempts it should leave no traces thereof.

There are thousands of methods of print modification. Some are complicated and difficult. Some are simple and easy. There are a few methods which, simple, direct, and inexpensive, the average photographer readily can employ. The beginner becomes proficient in their use after a few attempts; expert in direct proportion to the time and energy invested. Thereafter, if he chooses, he may undertake some of the more complicated methods. However, it

is probable that, as he progresses in the art, he will learn the requirements of good negatives and satisfactory prints, and will find the need for modification to be decreasingly acute. In other words, proper modification tends to eliminate itself.

Caution must be sounded that print modification can become utterly fascinating. Photographers learn some of the various methods, become adept at those which work best with them, and promptly turn fanatical. They forget that there are other, and equally effective, methods. They forget even that straight prints can be satisfactory photographs. Modification must be used with moderation, practiced with tolerance, and avoided whenever possible.

Print modification starts, of course, with the customary manipulation of print exposure under the enlarger, holding back and burning in, dodging, flashing, prolonging or shortening development, and the other accepted techniques which affect print appearance and quality. Subsequently come controls and processes, including toning, which need not be discussed here. Sufficient it is to say that virtually all prints, as they come from the developer, need some modification somewhere in order to adjust and to balance tones so that important areas and elements may have proper emphasis, unimportant areas and elements may be subordinated.

Years of making, studying, and judging photographs lead to the conclusion that prints, as they come from the developer, and, especially, the next morning after drying, commonly reveal five faults:

They are too flat.
Or, they are too contrasty.
They have light areas which should be darkened.
Or, they have dark areas which should be lightened.
And, in all probability, they have a discouraging collection of spots, both light and dark.

Flat prints obviously need more contrast, and contrasty prints, quite as obviously, need less. These are problems of proper exposure and development which may be solved by reading the instruction sheets packed with paper and developer, and by applying these instructions religiously. The result is likely to be the production of prints which are neither too flat nor too contrasty because they have been made on paper correctly adapted to the negative, have been given proper exposure and development, and, consequently, incorporate print quality. Chances are, however, that regardless of quality, the prints still reveal some areas that are too light, some areas that are too dark, and spots. Now is the time for print modification!

Dry Reducing

Possibly the easiest method of lightening dark areas and spots is dry reducing, so called because the work is done on the dry print. The reducer, iodine thiocarbamide, is composed of two solutions, plus methylated spirits, or alcohol. Solution A consists of 200 grains of iodine and 10 ounces of water. Solution B comprises 400 grains of thiocarbamide and 10 ounces of water. Each solution is kept in a small, dark-colored bottle, equipped with drop-per-stopper.

A working solution for reducing is made by placing in a small saucer five (5) drops of Solution A, five (5) drops of Solution B, and, finally, ten (10) drops of alcohol. This colorless liquid is applied carefully and cautiously with a small brush, dipped lightly in the solution and wiped nearly dry on the edge of the saucer. The treated area *immediately* is swabbed with a wad of cotton *moistened* in alcohol. With the 5-5-10 mixture, the reducing action scarcely is perceptible, yet is taking place. If more rapid action is desired, a 5-5-5 mixture will produce it. Always it is safer and advisable to use the weaker solution and to repeat the application until the desired results are obtained.

Dark spots may be eliminated merely by touching them with the tip of the brush, and then swabbing with alcohol. Larger areas may be reduced by applying the reducer *evenly* with a moistened wad of cotton, then swabbing immediately with alcohol. After being treated with reducer until desired results are obtained, the print is placed in hypo for a few moments, then washed thoroughly.

This method of modification effectively produces detail in dark shadow areas. It makes light areas lighter. And it is tops for spots! However, its use requires skill and judgment. It is advisable to start experimenting with an old print, to use the weaker solutions, and to apply the reducer repeatedly until the desired effect appears. Troubles usually come with insufficiently-dilute solutions, excessively rapid action, and uneven application.

Farmer's Reducer

Equally simple and effective method of print modification to lighten dark areas and spots—or to snap up the entire print by lightening the highlight areas—is the use of the well-known Farmer's reducer. This method has the advantage of permitting modification soon after the print is removed from the fixing bath. Given a water-wash of only a minute or two, it is ready for modification. If the print has been dried, it should be soaked in water 10 to 15 minutes before Farmer's reducer is applied.

Farmer's reducer is composed of hypo and ferricyanide. Obviously, it is poisonous. Formula for its preparation may be found in almost any photographic book. The more dilute solutions are preferable.

Acceptable formula calls for two solutions: Solution A consists of two (2) ounces of potassium ferricyanide and eight (8) ounces of water. Solution B comprises four (4) ounces of hypo and 16 ounces of water. These four-to-one solutions easily are prepared and will keep if stored separately. For a working solution take one-half ($\frac{1}{2}$) ounce of Solution A, six (6) ounces of Solution B, and add 50 ounces of water. This properly dilute working solution will not keep, and must be used immediately. Indeed, its life is limited to minutes.

To give an entire print snap, it should be thoroughly soaked in water, drained, then placed face down in a tray of the working solution. Every part of the print should be immersed at the same moment, else reduction

may be uneven. Complete and instantaneous immersion is a trick learned only by practice. Make a start by tilting the tray so that the solution runs to one end, thrust in the print endwise, quickly return the tray to level position, and rock continuously. After 10 seconds—and *no more*—remove the print from the reducer and place immediately in running water. This reducer continues to work after the print is removed, and even while the print is in the wash water. Consequently, under-reducing is desirable. After the print has washed for a few minutes in running water, examine to see whether additional reduction is necessary. Study the highlights especially for threatened loss of quality. Farmer's reducer proportionately has more effect on light areas than on dark. The full effect may not be realized until after the print has been washing for some time.

For local reduction, or the emphasizing of highlights and small areas, a somewhat different working solution is used. It consists of approximately 10 drops of Solution A, 40 drops of Solution B, and a small amount of water in a beaker. This working solution customarily is judged by its color, which is altered by adding water. For lightening dark areas, the solution should be a dark yellow—about the color of a K-2 filter. For emphasizing light areas, the solution should be a light, or lemon, yellow. Proper strength is learned only through experimenting, although the weaker solution always is safer and usually is preferable.

Local reduction is accomplished by applying the working solution with a wad of cotton, which should be moist, but *not* wet. With wet cotton the reducer may trickle over adjoining areas, spoiling the print. As an added precaution, turn the print so that areas to be reduced are at the bottom, and nearest the worker. Since the reducer works by chemical action, not abrasion, areas undergoing reduction should be rubbed gently to avoid damaging the emulsion.

Photographers equipped with a commodious sink customarily place the print undergoing reduction on the bottom of an overturned print tray and have cold water conveniently running through a rubber tube. They apply the reducer and immediately flood the area with water. This arrangement provides greater control and permits repetitive applications, which always are desirable. It is experience that when reduction appears to be satisfactory with the first application, already it has gone too far!

Prints need not be fixed after applications of Farmer's reducer, since it contains hypo, but they must be washed thoroughly to prevent the appearance of distressing brown stains. A 14x17 print, treated with Farmer's reducer, should be washed in running water *at least* two hours.

Advice that reducers should be used in solutions so dilute that they must be applied four or five times cannot be repeated too insistently. In other words, spare the reducer and save the print! Dilution being an important factor for control, time should be invested heavily and willingly in the slow process of reduction. Use of strong solutions for the purpose of accelerating the action is



EVENTIDE (left—before)—This print lacks snap and a strong center of interest. The sky is too dull, the water insufficiently wet, the perspective too shallow, and the boat blended with the shadows. EVENTIDE (right—after)—The print was given an all-over bath in Farmer's Reducer to clean it and to increase contrast generally. The white house was selected as the main center of interest and lightened with Farmer's Reducer applied locally. Local applications of reducer enhanced the effect of sun on water at the end of the canal, vitalized foreground water by lightening reflections, high-lighted essential areas along the far shore, and separated boat from shadow. Local applications of Spotone darkened slightly the distracting light areas of subordinate buildings.

likely to produce uncontrollable reduction and disaster. Important also to reduction is thorough and prolonged washing. To be more than half-safe, prints should be washed twice as long as ordinarily.

When it comes to darkening the light areas of prints, at least five equally simple and economical methods recommend themselves. The photographer is invited to experiment until he finds that method which, suited to his mentality and peculiarities, becomes for him a natural technique. Much is said and written about each and every one of these five methods. They are variously praised to the skies and condemned to limbo. Fact remains that any, and all, of them will work with equal effectiveness for those who become proficient in their use.

The darkening of light areas, like the lightening of dark areas, represents the adjustment and correlation of tonal values, an extension or contraction of the tonal scale. It is no more necessary to make dark areas black-black than to make light areas white-white. Modification requires moderation, application of the rule of reason, continuing use of judgment. Areas may be—and should be—modified to register varying degrees of brightness or darkness. Which areas to modify, and the extent of modification, always will remain matters of judgment and of artistic taste, the means to the end of the satisfactory photograph.

Pencil Work

Simplest of methods for darkening light areas is the use of pencils. Drawing pencils, or carbon pencils, in grades No. 3H, HB, 2B, or 3B may be employed. Pencil work, customarily more effective in darkening small areas, has the advantages of ease and simplicity of application,

but the serious disadvantage of impermanence. Subsequent application to the print of liquid wax, or repetitive applications of paste wax, are likely to eradicate the darkening.

Some workers develop no inconsiderable proficiency in eliminating spots by deft application of pencil work. Also, they develop an ability to darken small areas. Others, more heavy-handed and less skilled in the use of the pencil, can wreck the print. Pencil work involves not only the direct use of the pencils in darkening small areas, but of the application of pencil lead with a paper stomp. The pencil is scrubbed vigorously on a piece of paper to provide a stockpile of lead. The stomp is dipped, or lightly rubbed in the stockpile, and then the lead is transferred to the print. This method appears to be preferable with matte and textured prints. It borders upon the impossible for lustre and glossy finishes.

Brush Work

Water colors also will do the job. Customarily, photographers use Winsor-Newton lamp black, burnt sienna, and Payne's gray, applied with a small brush. Lamp black serves for cold-toned prints. With just a touch of burnt sienna, it is satisfactory also for the warmer tones, and for prints toned in selenium. Payne's gray, which really is blue, serves to spot blue-toned prints.

Proper application requires that a small, finely-pointed brush be dipped in the color solution, then drawn with a turning motion across a dry, white blotter until the tip is pointed and the brush is comparatively dry. Color and print must match in tonal intensities. More water, or pigment, is added to the solution until the matching is satisfactory.

For purposes of brush work, every area of the print to be darkened is regarded as a series of connected spots. The spots are touched, lightly, with the tip of the brush. The color dries in immediately. It is preferable to start working on the darker areas. Then, as the brush loses its charge of color, and the shade becomes lighter, the lighter spots and areas may be worked over.

The technique of water color application, like dexterity with a brush, must be learned the hard way—by trying. Persistence develops skill which, finally, produces acceptable results. The brush never is stroked. The tip is touched, lightly, to the print. A gentle wrist motion produces a shimmying movement. Then and thus the brush releases its charge of color.

Modification by water color is excellent for spotting, less productive for darkening large areas. It shares with pencil work the disadvantage that subsequent waxing may eliminate the results, although if water color be permitted to dry thoroughly, the danger is not great. Some workers achieve marvelous results, not only in spotting, but in darkening large light areas. For instance, they remove objectionable objects, such as telephone and light wires with reducer; then darken the area formerly occupied by the wire with water color. Skillful technique leaves no traces.

There are those who, becoming adept in the use of water colors, employ India ink for the purpose. By thinning the ink with water they obtain various shades from solid black to light gray. Theirs are steady hands, as a rule, with some ability at brush work, although both may be developed within reasonable time by those whose conscience is clear and patience adequate.

Chalking

One of the methods of modification over which controversy rages furiously is chalking. Chalk may be obtained, in blocks, at any art store in the required colors of lamp black, burnt sienna, Prussian blue, and Payne's gray. With the chalk should be purchased a kneaded eraser, and a small quantity of powdered pumice, plus some unsterilized cotton. Lamp black, being actually brown, serves for warm-toned prints. Lamp black, with a bit of Prussian blue added, becomes cold-black for the cold-toned prints. Lamp black with a bit of burnt sienna will match extremely warm tones, and selenium toning. Matching as to color is necessary, but positively.

The print is prepared by drying thoroughly, powdering with pumice, and abrading lightly with a wad of cotton to give the surface a slight "tooth" which will take and retain the chalk. Under the pumice the print becomes gray with dust; is restored by brushing with clean cotton.

The chalk is prepared by *scraping* a block *lightly* with a *sharp* knife. The edge of the blade is held *away* from the worker, and at an acute angle to the block. The blade then is drawn *toward* the worker, producing powdered pigment, usually without lumps or large particles. The beginner may start with the lamp black, which is the

basic color, to create a convenient stockpile of pigment on a piece of paper or hard tile. Solid particles and lumps, if any are found, must be removed. Other colors are added as needed, but always *sparingly*. Then the pigment dust is thoroughly mixed and smoothed with a spatula.

Now a paper stomp is dipped into the pigment and rubbed on a piece of paper, or on the white edge of the print, to make certain of color matching. Then the pigment is applied with the stomp, lightly and smoothly, to the area to be darkened in the print. It is spread evenly. For large areas, a wad of cotton dipped in the pigment dust may be used. Some workers prefer to use a cotton wad rather than the stomp, finding even distribution made easier.

Areas made too dark may be lightened by rubbing with a clean wad of cotton. Small areas may be lightened by using the kneaded eraser, which then must be cleaned thoroughly. By lighter or heavier application of the chalk, and by lighter or heavier brushing with clean cotton, areas may be made as light or as dark as desired, and blended with adjoining areas. With experimentation and application, dexterity and judgment are developed in using just the right pressure, and the correct circular and brushing motions of the cotton, to achieve the proper, and properly blended, tones. Errors may be corrected by rubbing the area lightly with clean cotton so that the pigment is removed.

When print tones satisfactorily are modified by chalking, the chalk is fixed either by drawing the print through the vapor escaping from boiling water, or by sliding the print quickly, and endwise, through cold water in a tray or tub. The print, thoroughly dried, then will accept wax or other final finish without difficulty or damage.

The chalking technique quickly and easily is learned with practice. It has the disadvantage that, unless properly and moderately done, the chalking tends to remain obvious. Matching of tones and colors is dependent both upon judgment and illumination. Since only a limited amount of pigment will be absorbed by the emulsion at one application, repeated applications must be made in order to achieve the deeper tones—and each application must be fixed in steam or water before the next takes place. Smooth and even application of chalk is essential.

Spotone

Many workers are inclined to believe that the preferable method of darkening small areas and spots is by using Spotone, and that treatment of larger areas best is accomplished by mediobrome. These are matters of opinion, and therefore of photographic controversy. The complete photographer will experiment with all the methods, and retain that which produces the best results—for him or her.

Spotone, obtainable at any photographic supply store, is a liquid dye which, upon application to the print, sinks into the emulsion. If properly applied, it sinks without

trace—an obvious recommendation. Furthermore, it is permanent. However, there is an inescapable “if” before that phrase “properly applied.” Many workers have become discouraged by unfortunate results before discovering the amazing potentialities of this medium. In other words, failure ordinarily may be ascribed to the person rather than the product. Many other workers achieve excellent results with Spotone, which they apply either to negative, print, or both.

Spotone comes in a package of three small bottles. One is neutral, or black. The second is blue; the third brown. Key to satisfactory use, as is the case with other aids to modification, is to be found in *dilute solutions*. Properly prepared dilute solutions of Spotone are made by adding 25 to 30 drops of dye—any color—to one (1) ounce of water.

It has been found preferable to make three one-ounce bottles of Spotone, or one each of neutral or black, brown, and blue, and each prepared in turn by adding 25 to 30 drops of dye to one ounce of water. A few drops of the neutral solution, placed in a small saucer, will match warm-toned papers, such as Opal G. Addition to the saucer of *one drop* of brown will serve brown-toned prints. Addition to the neutral working solution of *one drop* of blue will be satisfactory for blue-toned prints. This is a broad general rule. Prints toned to bright blues and browns may be matched by adding additional drops of blue or of brown to a neutral working solution, or by using

the working solutions of the blue or brown dyes themselves. Addition to all solutions of a drop or two of wetting agent will contribute to the satisfactory use of Spotone.

Application of dye to print requires dexterity and caution. Wet a small, pointed brush with the solution. Wipe the brush on the edge of the saucer, and then use a twirling motion to make a fine point. The body of the brush should be wet, but not dripping. Now touch the place to be spotted, or darkened, with the tip of the brush, lightly and accurately. Lift the brush immediately and stroke the spot with the *squared edge* of a small piece of white blotter. The color goes at once into the emulsion; the blotter removes the water carrier.

Properly used, Spotone leaves no trace. It may be applied to any type of paper surface, whether matte, semi-matte, lustre—or even glossy. It is particularly good for spotting. Repetitive applications will produce deeper tones. Obvious secret of success is the building up of tones by repeated applications. Time and patience are essential.

Mediobrome

One of the best known mediums of print modification, perhaps because of its remarkable use by the famous Belgian photographer, PSAer Leonard Misonne, is mediobrome. It is variously regarded, depending upon familiar-



AUTUMN (left—before)—In this print, excessive contrast destroys the mood of quiet, misty mellowness necessary to a feeling of autumn. Light areas create splotches which wreck tonal harmony. AUTUMN (right—after)—In making the finished print, diffusion was employed under the enlarger to introduce mist and mellowness. Mediobrome has darkened the washed-out sky, softened the contrast in the foreground water, darkened slightly the light areas on the ground and among the trees.

ity with its application and possibilities. Being one of the easier, and by far the more versatile, of modification methods, it should be the amateur's delight. For darkening any print area larger than a spot, mediobrome is the best friend of the bungling tyro with ten thumbs!

Basically, mediobroming is nothing more than applying artists' oil colors to darken print tones. It may be used with any print surface, and *after* the print has been toned, dried, spotted, and mounted! Errors can be corrected almost to an infinite number of times without causing damage or leaving trace. Mediobrome further is distinguished in that it requires, with a single exception, small quantities of inexpensive materials.

The single exception, as regards materials, is unsterilized absorbent cotton. The beginner might just as well buy plenty. He will need it, and use it. The other items are: small bottle of artist's linseed oil; kneaded eraser; spatula; piece of glazed white tile; Winsor-Newton oil colors—lamp black and ivory black (large tubes), plus small tubes of burnt sienna, Payne's gray and Prussian blue.

The print, dry, is prepared for mediobrome by applying linseed oil to the general area to be worked. *Moisten* a wad of cotton with linseed oil and rub the area with firm pressure. Use a rapid, circular motion, and cover more area than will be treated. Then, with a larger wad of clean, dry cotton, rub the oil into the emulsion until it cannot be noticed when the print is held at an acute angle to the light. It is essential that the oil be rubbed thoroughly into the print.

Now consider the overall color, or tone, of the print, and select the proper oil color. If the print be on chloride, or warm-toned paper, lamp black will produce a matching tone. If the print be a bromide, and cold-toned, ivory black will serve. Lamp black and ivory black are the two basic colors of mediobrome. Warmer tones are obtained by adding an infinitesimal amount of burnt sienna to the lamp black. Burnt sienna helps also to match selenium toning. Colder tones are obtained by adding a tiny bit of Prussian blue to ivory black. Small portions of Payne's gray or Prussian blue help to match blue-toned prints.

To prepare the oil color, squeeze a blob of lamp black or ivory black about the size of a pea on the white tile. Spread the paint over the tile with the spatula, working paint and oil together until the mixture is satin smooth, semi-liquid but not thin to the point of running. Now apply a bit of the paint to the white edge of the print with a Q-tip to make certain the colors match. Adjust the mixture until matching is assured.

With a tightly-wadded piece of clean, dry cotton, dipped solidly into the paint, thoroughly smear the areas to be darkened. In appearance, the result will be messy, dark, and discouraging. Now take another piece of clean, dry cotton and, with smooth medium pressure and circular strokes, blend the paint over the areas to be darkened. For thorough darkening, blend smoothly, but rub lightly. For less darkening, blend smoothly, and rub more heavily. In other words, the more paint remaining on

the areas, the darker they will be; the more paint removed, the lighter they will remain.

Paint which has bled over the edges of the areas under treatment is removed with clean cotton. If any paint still remains, rub off lightly with a wad of cotton moistened in linseed oil. Indeed, if at any time results appear to be unsatisfactory, the paint may be removed by rubbing with cotton moistened with oil. The oil will remove every trace, and the work may be started all over again.

Mediobrome requires that the paint be spread smoothly and evenly. Experience will disclose just how much rubbing with cotton is necessary and how much pressure should be applied. Rubbing never need be heavy. Always a light, circular motion should be used. Yet firm pressure will cause lightening by removing some paint; light pressure will cause darkening by leaving paint on the print. Spots and small areas may be lightened by rubbing with a clean Q-tip, or a wad of cotton wrapped tightly about one end of a wooden matchstick. It is always advisable to blend the treated areas with untreated areas by rubbing lightly with cotton so that dark and light flow naturally into each other and, ordinarily, without abrupt tonal difference. However, if abruptness is desirable, it may be achieved.

Once all areas are mediobromed, and the results appear satisfactory, the print is put away for *two or three days* to dry. At the end of that time the print permanently is dried and darkened; it may be waxed without affecting the mediobrome. At any time before the paint dries, it may be removed with linseed oil, without leaving a trace.

Mediobrome has such disadvantages as consuming an inordinate amount of cotton, of making matters extremely easy for the careless worker to smear self and surroundings with paint, and, unless properly handled, of remaining painfully obvious on the print. Correctly applied, mediobrome is extremely difficult to detect, easy to learn to use, and permits of rapid modification without damaging the print. In fact, mediobrome provides a helpful method for trying out various effects, since treatment quickly may be changed.

Mediobrome has another substantial advantage in that it will teach beginners, and quickly, that modification must be minimized and definitely has its limitations. It will teach beginners also the lesson that nothing can be substituted for the experience which derives from repetitive trial and error, plus persistence.

All methods of print modification might be criticised as temptations to the photographer to indulge in faking. Actually and honestly, print modification comprises only the application to serious, natural photography of any of a number of control processes, each as legitimate as the utilization of exposure meter, varying grades of paper, and varieties of developer.

Until such time as all exposures prove correct, all negatives are perfect, and all prints incorporate all the tones of scene or subject, print modification will remain essential to satisfactory photography. And, definitely, there'll be changes made!

THERE is glamour and beauty in your own home town. The problem is how to achieve it in pictures so that they will be more than an illustrative record or mere documentation. To have universal interest and appeal, our town must be interpreted not only as it is but also as we feel its many moods and facets. We must aim for the unusual in treatment, with a creative viewpoint and dramatic effects. City scenes are not static—they have a personality, mood, and atmosphere of their own.

The everyday scenes in our home town too many times go unnoticed, for the lack of a fresh approach to familiar subject matter. We often think that the paradise for picture making is in some far distant place, when it actually is at our own back door. Cities and towns, villages and hamlets, are essentially alike almost everywhere. There may be a slight difference in architecture, but people, places and things are much the same wherever you go. Your own home town offers the greatest possibilities because you have a personal and intimate knowledge of its character, which you should strive to produce in your pictures. Put feeling and emotion into their interpretations so that they will have something to say and invite admiration from any audience.

You may think that everything has been photographed in your town and that there is nothing new. This may be true, but you can give fresh interest to familiar scenes. Interesting subject matter is all about if the photographer



THE NELSON GALLERY OF ART

"GLAMORIZE" YOUR HOME TOWN

BY FRANK MEISTER, APSA

creates it from his imagination and uses an alert viewpoint. Assume the role of a stranger in your quest for pictures, and you will take on a new approach to your familiar surroundings. Subject matter must be viewed with an alert eye, striving all the time for unusual and dramatic treatment. Scenes that look dull and lifeless in the daytime often have beauty after dark, whether the night be dry or wet. Lighted buildings, theatrical districts and street scenes offer glamour pictures at night. A lens shade and a tripod are necessary for longer exposures, and you will find a whole new aspect of your city unfolding.

Every city has its own glamour and you can photograph its own entity as you know and understand it. Picture street scenes, tall buildings, churches, the zoo, parks, river fronts, industries and historical places. Familiar scenes often take on a new character under various light conditions, time of day and season of year. Seek out new viewpoints, different angles, and dramatic contrasts in light and shade. Subject matter may be very commonplace, but it is how you treat it

and how much of your own personality you put into your pictures that counts.

As you go about your daily tasks, make it a practice to observe your surroundings with a photographic eye. How would a certain subject look in early morning sunlight or in late afternoon, or even at some other season of the year? Long shadows in early morning or evening impart a mood and feeling not found at mid-day. Think about your subject matter in terms of all kinds of weather and all times of day or night.

In this way, you will get the feeling and spirit of a city and your pictures will have spontaneity and a freshness of viewpoint. You can plan glamour in your pictures beforehand if you visualize just what you are striving for before taking them. Home town pictures must be vital, alive and impersonal, so that whoever looks at them can visualize like situations in his own locality and be stimulated to appreciate and record them in a like manner. Human interest is the same the world over, and scenes that thrill you will probably interest others.

The finest scenes are those that capture a feeling,



DAY'S END

atmosphere, mood or emotion of the city itself. Sunlight is not always an essential factor, as rain, fog and snow lend themselves to good city scenes. Fog and snow tend to obliterate any undesirable details in a picture, and after a rain there is a washed atmosphere with glistening and sparkling reflections on wet pavements.

A street scene after a rain with a backdrop of dimly outlined buildings will be a transformation of commonplace subject matter with the many reflections from wet surfaces. Compared with ordinary dry weather conditions, you will be amazed at the results of pictures taken in the rain. Again, you will miss a lot if you do not take advantage of foggy weather. Your subjects will take on a soft beauty in the mist, and this is a good time to find pictures in the parks, where the trees and the paths will offer a recession of planes from dark to light in aerial perspective, and you will see beauty of half hidden trees in the mist. Snow is also a great transformer of familiar scenes to those of beauty. A white mantle of snow will often provide a virtual fairyland to many city scenes. So do not leave your camera on the shelf in bad weather. Take advantage of unusual weather conditions to help dramatize your pictures thus lifting them out of the ordinary and making them unusual in treatment.

You might like to photograph the older homes and buildings of your city. The older buildings you love and cherish and are proud of need not pass into oblivion if you make a pictorial record of them for the benefit of posterity. Pictures of your home town will have a historical value as the years go by. Great changes will occur in the future as they have in the past, and you may regret it later if you have failed to preserve what you can record today.

In the handling of subject matter, it is highly important to avoid the objective viewpoint in your picture making. A record shot depicts only what is before the camera. If you would have glamour in your home town pictures, it is the subjective interpretation of the photog-

rapher which counts most of all. Make them show deep feelings, drama, human emotions, and personality in life and architecture. Strive for such effects in glamour pictures of your city. Have people in your pictures whenever possible. Nothing attracts more human interest than to see other people in pictures, and whenever they bear a convincing relationship within your subject matter, be sure to include them. Sometimes, however, people or figures may detract from a picture. In such cases leave them out.

Be so intensely interested in your city that the pictures you make will reveal what you feel as well as what you see. This emotional quality approaches the calibre of a salon print and you will find that many times a salon print will emerge from some interpretation of city life. Have your pictures say something, be genuine and convincing—a vital cross-section of our American way of life and the spirit of our times, and our cherished ways of living. This approach will depict the most meaningful pictures of your home town and capture its beauty and charm.

We may ask what profitable value can we place on our collection of city pictures. To be sure, there is a steady outlet for them, other than to be filed away for posterity. An incentive will always make us produce better pictures so that they will be admired by others and provide some reward for our efforts. The writer has had close to a hundred Sunday feature reproductions in his home town newspaper, depicting almost every phase of city life in his locality. Many of these same pictures have had a long life in the salons, and have appeared as features in



TENTH STREET ON SUNDAY

SUNBEAMS
Frank Meister, APSA



magazines and as illustrations to numerous articles written by the writer. Still further, the main city library has preserved all the pictures featured in the local newspaper in their archives. Likewise, many of these pictures have found their way as murals into places of business. Other outlets are the Chamber of Commerce, the Historical Society, calendar companies, and for unusual postcards if you are looking for the profitable side. Each and every source has its own requirements, and if you are versatile you can satisfy almost any request.

This achievement comes from knowing your home town on the surface and below the surface, and knowing how effectively to produce pictures which evidence that vital spark of glamour. When your audience can recognize your pictures on sight, then you have transmitted your inner self and personality so fully in your pictures that an observer can feel the same emotion and feeling you had when you made them. You can do this, too, if you have an interest in, a love for, and an understanding of your own home town.

Print Analysis

"Crazy Pattern"

By H. K. SHIGETA, HON.FPSA

THE GREATEST difficulty a novice experiences is perhaps his inability to correlate the ideas and the materials before him. He comes upon a scene. Something in that scene attracts him. He may not be quite sure just what that something is. But he is certain that there is something in the scene worthy of a picture. The unfortunate part of all this is that he does not know what to do with that which confronts him. In his bewilderment he makes a shot of it in the hope that somehow or other he may capture that elusive something which he felt at the outset. But he is not even sure which part of the scene interested him most.

It has been said that the camera "holds a mirror up to nature," that it is "true to nature." A camera mirrors nature in a cold, impersonal way—heartless and unemotional. Nature as she exists and in herself is seldom art; nor does she, as a whole, affect us as art. In art we are concerned primarily with the emotional and intellectual aspects.

A snapshot is but a collection of scientific data, reproduced by pure science. Its value is wholly scientific. It possesses no emotional quality. Pictorial art, on the other hand, is, or should be, highly emotional. Its sole mission is to give joy and knowledge, not the kind of



FIGURE 1. "Crazy Pattern" as submitted.

knowledge that is imparted by science but the kind inherent in music, poetry and literature. If one were to say that that which is "true to nature" is art, then a novice's snapshot would be superior to all the works of the masters in painting, for the snapshot is the exact replica of nature.

No, the truth is, art is much more than a mere copy of nature in its exactitude of details. The paramount requirement in art is "largeness" of the impression and the corresponding "largeness" of the effect, as in the case of the speaker who knows how and where the emphasis should be placed.

When a photographer aims his camera at art, and not at science, his own personality enters as a dominant factor. He begins to control the final result by controlling all the succeeding stages of the process. His taste and his preferences at once direct his actions. His interest becomes focussed on one thing out of a myriad of things. He arrives at a thing called "motif."

A "motif" is something that is felt, rather than seen. It may be made to grow. We are attracted by something in a scene and upon closer study and inspection we may find that there is one thing which stands out above all else in its character, shape or color.

If the photographer has something of the artist in himself he will wonder how best he can use this bit of material and make it yield to his will. Presently it begins to grow and develop in his mind, as a seed grows and develops into a plant. He sees an artistic possibility which may be developed to enhance the subject and the composition and thus enable him to express that which he desires to express. When he has reached this stage he has forever and completely served himself from the purely scientific worker.

As we gaze upon "Crazy Pattern," Figure 1, we see many elements, each in itself interesting enough. But,



FIGURE 2. "Crazy Pattern" as corrected.

because of this profusion, they have lost their power. It is like the case of a man who went to see a tree and saw the woods. Because of the profusion he failed to see the tree.

In the limited area of this picture, upwards of ten buildings and roofs are seen, plus a number of windows. The motif is uncertain. If one is forced to find it, it may be the house in the foreground which, in its present stage, is not interesting enough. There is a small possibility that the figures walking up the path may be the theme, but they are somewhat merged into the background and are therefore insignificant. The shadow areas are over-dark, dull and uninviting. A careful study will reveal that we have much useless lumber in the photograph.

By reframing the picture as suggested in Figure 2 much of the undesirable material has been eliminated. The picture begins to appear orderly and balanced and the whole arrangement has become greatly simplified.

Figure 2 is the same picture, except that the writer took the liberty of copying it and adding some corrections. The gloomy shadows have been lightened and details have been placed where they were needed. It may be seen that a timber has been added to support the perilously askew dwelling, which helps give more meaning to the theme and also helps to guide the eye from the house to the figures. The shadows directly behind the figures have been greatly relieved and the value of the figures made lower, in order to obtain the necessary tonal contrast.

The snow is generally lightened, and yet the trodden part is left darker than that on the roof.

The Method of Correction

First a careful copy was made, giving an exposure slightly on the full side in order to decrease the excessive

contrast. The negative was developed in a mild developer, (D-7 diluted). When the negative was dry the lines of the boards and windows were etched in, also the timber was put in, partly by etching and dyeing. The shadow areas behind the figures were lifted by the application of the grey dye and the figures themselves were made darker by etching. The roofs in the rear were made lighter, with

careful application of the dye to look more like snow.

As each correction was made a quick proof was run off to see that the values were right. Further corrections were added as needed.

The resulting picture may not be a prize winner but it is a much improved picture, and it is definitely pictorial.

Light, Shadow and Black Cats

By NICHOLAS HÁZ, FPSA

5412 Niles Street
Skokie, Illinois
November 1, 1949

Dear Fred:

Do you still want an article for the JOURNAL? I promised you one but they are hard to write. One has to screw up one's face into a mask of wisdom, put on a thinking cap and come up with great discoveries, inventions or clever plagiarism. These are hard problems to solve. How about a letter?

In a letter one can be as silly as the Lord made one; one can be confidential, direct and simple spoken; no need of gobbledygook in a letter. One can also hop from idea to idea without being accused of being a scatterbrain. So here goes between us and any one who cares to read.

I would like to mention the mourning I am in for the passing of the word "light" in talk about lighting. "Light" is dead and its place is taken by "highlight." Suppose highway, high hat, and high seas would kill off and replace the words way, hat and seas. We would be poorer for the loss of these words, and the language would become less useful and less beautiful with their passing.

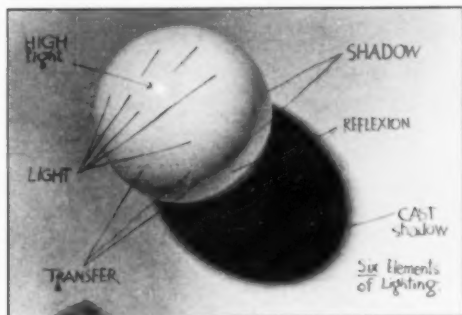
I remember "highlight" when it was still just a small blob sitting on noses, lips, chins, etc., and did not cover all the territory it squats on now. It now stands for the entire area of the object or image that is lighted, and

that also includes the high-lights, which used to be the utmost peaks of light, being the mirrored likenesses of the sources of light. The high-light in the eye now goes under the name of "catch-light." Why "catch" the Lord only knows, it could as well be snap, crackle or pop light. But I assume we must get used to it as we have gotten used to the nauseating word crop instead of good old trim.

Then I would like to plead for citizenship rights for "cast-shadow," the pariah among elements of lighting that is born, lives and dies nameless. It is unknown under its own name: not even the Oxford Dictionary lists it among the zillions of words it contains. "Cast-shadow" is represented in English by the words Shadow and Shade which it must share with crooks, ghosts and the legitimate shadows and shades that are the unlighted parts of objects and images.

He is a bright photographer who can call the cast-shadow by its own name when a good writer of a creditable book from England names it "pseudo-shadow." If cast-shadow is "pseudo" then the sun that casts it is also phony. It is about time to clear up this mystery and define the natures of both shadow and cast-shadow as understood in the lighting of things and people for photography. Let us repeat: shadows are the unlighted areas of objects and images; the parts, that being turned away from the sources of light, must appear dark to the onlooker. The cast-shadows are dark areas cast by objects or persons upon other objects on which they appear. (See illustration.) Trees cast shadows on the ground; the moon casts a shadow on the earth during eclipses of the sun, and the difference between shadow and cast-shadow is therefore great.

Looking for the source of the bad reputation cast-shadow has among the elements of lighting, it seems that in olden times people assumed that the devil sits in the cast shadows, as some foot pads hide themselves behind billboards. No one wanted the devil in his pictures so painters usually omitted the cast shadow with the approval of the sitter, who would rather give up his shadow than have the devil for a companion in his portrait.



With the characteristic conservativeness of the human race, portrait photographers still throw out cast-shadows from their pictures no matter what drama, zing and wallop they can give a picture. Of course, a cast shadow can be a nasty nuisance when it steals the leading place from the likeness of the person represented, or when it duplicates this likeness in a caricature, with big noses, heavy waistlines, etc., that are a travesty of the looks of the person portrayed.

A good picture maker who does not mind innovating now and then can use cast shadows to great advantage. Anyone who would make a specialty of always using cast shadows, as Karsh always uses hands with the heads, could make himself distinguished in short order.

Come to think of it, two movie directors used to make fine pictures using cast shadows. They were von Sternberg and Mamoulian; what became of them? Do you suppose that the prejudice against cast shadows hurt them?

Another thing: did you ever hear the urgent warning never to monkey with the manufacturers' instructions concerning the use of his film? Do what he tells you. He pays big wads of lettuce to his researchers who certainly should know more about films and developers than you. In my professional days I followed his instructions to the hilt. But only after I quit as a professional and knew what I wanted did I learn to make good negatives by disregarding the instruction sheets.

I always knew that a good photograph shows details both in the lights and in the shadows; but I could not make negatives that would yield such prints until I started to think for myself and modified the dictates of the film manufacturers.

It seemed to me that to get detail into the shadows I must expose for these details. So I took my light meter into the deepest shadows and measured them generously and carefully. Then I doubled the length of the exposure I was told to give, to make sure that the details would be in the shadows. In contrasty subjects, such as black cats in the snow or brightly lighted windows in a black night, the exposures seemed to be absurd, maybe a thousand times more than was needed to get detail into the light. But I kept the lens open anyway just to make sure that the detail would be in the shadows. When it came to developing the negatives I knew that if I followed the manufacturers' instructions my tremendously over-timed lights would block up so densely that not even an arc light could light through them. So I first cut the time of development in half, then to one-third and even to one-fifth. Later when my films showed nasty streaks due to the shortened development time, I simply diluted the working solution with water by a hundred, two hundred, three hundred and sometimes four hundred per cent, and developed in this thin soup for the recommended time and temperature. I got negatives in this manner, Fred, that had detail both in the lights and in the shadows and that could be printed straight without any dodging, new cosining or paper negating.

These negatives do not look pretty. They show no black and white, nor a long range of grays. They seem to be gray like a rainy day. But when used in a good *condenser* enlarger and printed on normal paper they show a range of grays between the black and white that is surprising. So if you are bothered by the need of long printing times, dodging, trick halos that you get by bum dodging, unequal prints from the same negative, the necessity to retouch with dyes, etc., to hold back your shadows, try this way of exposing and developing and if you don't succeed tell me about it. What you should not do is to pass judgment on it before you try it out. I know of some boys who ridiculed it before they tried it but now they would be sick without it.

And if the manufacturers should call you names because you disregard their instructions, just let it pass. So long as you get what you want let them talk.

If you want to boil this down to a rule here it is: "*Expose fully for detail in the darkest shadows; develop not to block up your lights and highlights.*" Get thin, tender negatives that are so translucent you can read small type through the densest part. Print with a condenser enlarger on normal grade paper. Amen.

NICK HAZ



THE IDOL

Dr. M. Van De Wyer, APSA

What Do They Use?

By D. WARD PEASE, APSA

THERE is an old saying, "Figures don't lie, but liars are statisticians." What does this have to do with photography? The connection is with some elementary statistics that I was showing the boys at Fort Dearborn Camera Club one evening several years ago. They found them so interesting that they formed the basis of an article in the club publication shortly afterward, and each year for several years after that. Six years of such data have been completed. In addition to the information to be gained from the totals for the six years, some trends with the passage of time may be discernible. The period covered starts in the middle of war-time shortages and lack of European contributions and continues until both of these conditions were largely changed for the better.

Each year the "American Annual of Photography" has a section in the book edited by Frank R. Fraprie, Hon. FPSA, called "Our Illustrations." In addition to the analysis and comment, complete technical data are given for most of the prints. I like to go through this technical data, not with the idea that by so doing I will learn to make prints like those reproduced, but more for the purpose of finding out what are the favorites among the cameras and supplies, as well as trends and changes as new equipment and materials become available. To do this I reassemble the data under the following headings: 1. Size of negative. 2. Type of camera. 3. Film used. 4. Negative developer. 5. Printing paper. 6. Print developer.

The results are given here with the year of the Annual at the top and the total in the last column. The order puts the most popular for the six years at the top, and so on down the line. By placing the years side-by-side and reading across the lines it may be possible to detect a trend or two. A bit of comment will be added here and there.

1. Size of Negative

Size	1944	1945	1946	1947	1948	1949	Total
2 1/4 x 2 1/4 (Incl. 1 3/4 x 2 1/4)	18	17	21	23	24	31	134
3 1/4 x 4 1/4 (Incl. 9 x 12cm)	24	23	13	15	12	15	102
2 1/4 x 3 1/4 (Incl. 2 1/2 x 3 1/2 & 6.5 x 9)	11	8	15	10	8	7	59
4 x 5	13	11	6	5	6	7	48
5 x 7 (And larger)	4	5	8	9	6	2	34
35mm	3	2	2	2	6	8	23
Misc. odd sizes	—	1	—	—	1	1	3

Preferences are obvious from the order in which the sizes are listed. Looking across the list reveals a slight but steady growth in the numbers of the 2 1/4 x 2 1/4 size and a tendency for the 4 x 5 and 3 1/4 x 4 1/4 sizes to decrease. The rise in the numbers of the 35mm size in the last two years does not seem to me to indicate a general return of popularity of that size. The reappearance of

the English and perhaps some few other European workers into the field is responsible, as that is the size which has been popular with them through necessity during the war years and they are using those negatives, now that they can get the paper. It is hardly safe to try to draw conclusions from the numbers with the still smaller groups.

2. Type of Camera

Type of Camera	1944	1945	1946	1947	1948	1949	Total
Twin lens reflexes	10	12	14	18	17	25	96
Graflexes and similar	19	15	11	10	11	10	76
Speed Graphics and similar	14	18	11	5	7	12	67
Misc. roll film types	11	9	8	11	6	6	51
6.5 x 9 and 9 x 12cm ground glass back type	9	9	9	11	5	7	50
View and studio cameras	6	8	9	10	10	7	50
35mm cameras	3	2	2	2	6	7	22

These figures indicate a strong preference for looking down into the top of the camera. The trend here is toward the smaller twin-lens roll-film type of reflex. The Graflexes decreased some, then held their own. I would not be surprised to see them come back up again in a few years after some of the newer developments have achieved more widespread use. The Speed Graphic took quite a dip, but the figures to the right of the line may indicate a come-back. This would not be surprising, in view of the numbers of that camera one sees around. It is interesting to notice how well the 6.5 x 9 and 9 x 12cm ground glass back cameras have held on, as there is probably not a single one of those cameras which was imported since before the war.

In connection with the film used it is often difficult to determine whether some of the films listed were in pack or sheet film form as the same name could cover either and the cameras involved could handle both forms of film. I have felt inclined to list such films as sheet films in most cases for two reasons:

1. Throughout most of the period involved and for some time before that the sheet film was more easily obtained than the pack.
2. I have felt that photographers experienced enough to have prints accepted in the Annual would favor the sheet film.

3. Film Used—Roll and Pack

Film	1944	1945	1946	1947	1948	1949	Total
Anso Supreme	11	12	7	11	10	11	62
E. K. Co. Super XX	5	9	12	5	11	9	51
E. K. Co. Panatomic X	9	4	4	5	10	8	40
E. K. Co. Verichrome	1	3	5	8	5	3	25
E. K. Co. Plus X	1	3	5	7	2	6	24
Anso Plenachrome and Super Plenachrome	6	6	2	2	1	1	18
Misc. Foreign	1	—	—	—	3	9	13
Anso Superpan Press	2	5	—	2	3	—	12
Anso Finopan	—	—	—	—	1	1	2

The favorites are evident, yet the factor of availability

would no doubt be important over much of the period represented. For instance, I suspect that the appearance of the ortho films during the periods of shortage was a result of conditions more than anything else.

Film Used—Sheet Film

Film	1944	1945	1946	1947	1948	1949	Total
E. K. Co. Super XX	5	3	3	4	2	2	19
Anso IsoPan	4	5	2	1	2	2	16
E. K. Super Panchro Press	4	3	3	1	1	4	16
DuPont (Defender) X F Pan	3	3	4	1	2	—	13
E. K. Co. Panatomic X	1	6	1	—	—	3	11
E. K. Co. Tri X	3	—	3	2	1	2	11
E. K. Co. Portrait Pan	—	5	—	3	2	1	11
Anso SSS	4	1	2	—	—	3	10

Others come in small enough numbers so that only the totals will be given, without the yearly distribution: Anso Superpan Press, 5; E. K. Co. Super Speed Ortho Portrait and Ortho X, 4; DuPont Arrow Pan, 2; Misc. (including foreign), 12.

The wide spread of the selection found shows that good work can be done with a great variety of materials.

4. Negative Developer

Developer	1944	1945	1946	1947	1948	1949	Total
D-76 and Anso 17 (Essentially the same)	23	21	15	20	8	9	96
DK 20	9	11	15	10	12	12	69
Pyro and Elon-Pyro	4	6	2	5	1	6	24
MQ (Not otherwise listed)	3	5	—	—	8	4	20
DK 50	3	3	4	3	3	2	18
Microdol	—	—	—	3	2	9	14
Glycin	3	2	3	2	1	3	14
DK 60a	3	1	3	3	2	1	13
Finex	2	3	1	2	2	3	13
Edwal 12	2	3	2	1	3	—	11
Edwal 20	1	5	2	1	—	—	9

Others come in small enough numbers so that only the totals will be given without the yearly distribution: Anso 47, 7; 777, 6; D 61a, 4; the rest we can throw into miscellaneous, for a total of 54.

The first two give an interesting comparison. It is obvious that the D 76 and Anso 17 borax type developers are on the way out. If Microdol is added to the DK 20 line, the rise is almost even with the drop of the previous group. Both of these developer groups have the advantage that they give long time service with the aid of replenishers, a good lazy photographer's arrangement. The same cannot be said of the next group, that with the Pyro and Elon-Pyro developers. The fact that they stand so high on a list of this kind would seem to indicate that the claims of that last bit of negative quality that are attributed to such developers must have some merit or so many would not use them.

5. Printing Paper

Paper	1944	1945	1946	1947	1948	1949	Total
Opal, Kodalure, Illus. Spec.	31	31	31	25	17	20	155
Velour Black, Illustro	11	14	12	15	5	6	63
Kodabromide	3	5	2	1	4	3	18
Cykora	3	6	1	2	3	—	15
Vitava Projection, Platino	5	5	—	—	1	1	12
Misc. including foreign	8	3	6	4	13	19	53

In the following tabulation of printing papers, it is worthwhile to explain why certain papers are grouped together. For instance, Illustrators Special presumably differs from Opal only in the paper base (the same is true for Velour Black and Illustro), and Kodalure is thrown in with Opal because present day Opal has many of the properties of pre-war Kodalure. Vitava Projection appears in the list for the first two years, Platino for the last two. These are put on one line as it is evident that the two are practically the same.

The favorite certainly stands out. It happens that the two that are thrown in with Opal add little to the total, so there is no doubt about its popularity. I do not believe that the diminishing numbers in the last two years mean any drop in popularity. This was probably due to the return of the foreign prints as shown by the last line and they crowded out a like number of prints which would have been as much on Opal or Velour Black as was indicated in the previous years.

6. Paper Developers

Developers	1944	1945	1946	1947	1948	1949	Total
D 72	18	16	12	10	5	6	67
D 52	16	9	8	4	3	5	45
55 D	1	6	4	3	2	3	19
Amidol	2	—	1	3	2	2	10
Adurrol (CHQ) and MQ	—	5	2	2	—	—	9
Adurrol	2	2	1	—	—	—	5
Agfa 125	—	2	1	—	2	—	5
Agfa 135	—	2	1	—	2	—	5
Selectol	—	—	—	1	3	1	5

Others show up in decreasing numbers and are listed here as totals only: Dektol, 4; Agfa 130, 3; Edwal 106, 3; D 64, 2; Edwal 111, 2; miscellaneous, 20.

From the fact that the favorite developer is not the one recommended for the favorite paper it might be inferred that many have found, as I have, that Opal works better for pictorial purposes with D 72 than with D 52, the recommended formula. Apparently the manufacturer's recommendations work out better for portrait usage. Well down on this list of developers (as well as on the list of negative developers) some of the newer, much advertised packaged developers have appeared.

There are several ways in which a reader can take a listing of the tools and materials of the successful workers. He can dash out and buy a Rolleiflex or a Graflex, stock up on Superpan Supreme or Super XX (roll or sheet, they both rate high), D 76 or DK 20, some Opal and D 72 and say, "Now I am going to make all of the salons!" On the other hand he might find that his present favorites are high enough in the lists so that he is reassured that he is not too far wrong. Still another way to look at it is that good prints have resulted from the application of well developed skill and artistry to almost anything that can be had in the way of tools and supplies; so after all it is the man behind the camera that counts most.

THE BACHRACH photographic studios in Baltimore were seeking an apprentice to load plate holders. The 22nd applicant was a slender boy who looked none too well fed.

Mr. Bachrach gave the applicants only one test. After sizing up their physical proportions and mental equipment he led them into his inner office and showed them a painting. "What is your frank opinion of this painting?" he asked.

Most applicants, thinking that perhaps the painting had been done by Mr. Bachrach, played safe and said it was fine—an excellent piece of art, etc., etc. Not so with the slender 22nd applicant.

"Do you want the truth, Mr. Bachrach?" he asked.

"Yes," said Mr. Bachrach.

"Well," said the applicant, "the painting is pretty bad. And I will tell you why."

The youth who had shown honesty, plus a little knowledge of portraits, got the job. He was Paul Linwood Gittings, now owner of three flourishing studios and one of the leading professional photographers of the United States.

While Mr. Gittings does not today have to worry about where his next meal is coming from, this was not always true. He fought poverty throughout his childhood and missed many a meal.

Paul Linwood Gittings was born in Baltimore in 1900.



PAUL L. GITTINGS

By George Caragone

PSA Personalities

PAUL LINWOOD GITTINGS, FPSA

By JACK WRIGHT, FPSA



His father was blind and unable to support his family. His mother was an invalid who augmented Paul's meager earnings with work as a seamstress. At the tender age of eleven Gittings went to work as office boy for McCormick and Company for \$3 per week.

During World War I Mr. Gittings worked in a munitions plant at night and attended the Maryland Art Institute during the daytime. Too young for the Army, he was intensely patriotic and did war posters, beside handling the War bond pledges and subscriptions at the big plant where he worked.

On Victory Day the plant closed down without notice. Mr. Gittings was out of a job. He finally found a position

THE TRIAL PEEK

This composition is one of those happen-chance poses that we strive for, yet seldom capture. The original negative was made in a seated posture three-quarter length; and while it seemed to have merit, no inspiration was forthcoming until quite recently. The figure was leaning somewhat forward. By tipping the head and figure back, and recropping to a close-up position, the final result became pleasing. Before cropping and tilting, this print would not have received a second glance from a critical jury. Today it is favorably received.



MAURICE TABARD

Here is a portrait that I find particularly pleasing. This great photographer has a personality and a mind difficult to reduce to photographic paper. His movements are quick and alert, his humor is bright and infectious. Like most photographers, however, he manages to pose when before the camera. This result was a happy combination of the right lighting at the exact moment that the pose and personality emerged, and the final composition is almost a living reproduction of the man.

as a streetcar motorman, which allowed him to go on eating. A little later he successfully met the test imposed by Bachrach.

It is not necessary to say that Paul Linwood Gittings did not practice amateur photography in his boyhood. You cannot buy much equipment or paper on \$3 per week, particularly after feeding yourself. However, he had a real flare for photography and under the expert tutoring of Walter K. Bachrach and his cameramen he became a regular, practicing photographer in three years. In 1923 he entered his first print in the national professional convention in Cleveland. It was accepted, hung and published in the rotogravure section of the *Cleveland Plain Dealer*.

After several years of experience in several Bachrach studios, Mr. Gittings became chief photographer for the entire Bachrach chain in 1924. "This job meant financial security at last," he says. "However, my work was now to direct the efforts of others rather than take pictures myself. I found that my creative efforts were being stifled and I determined to return to the posing room."

Hoping someday to own a studio of his own, he began traveling from city to city as Bachrach's traveling representative. Long before this his pictures had become really

outstanding and in great demand. When Bachrach had any particularly important or difficult portrait assignment, Paul Gittings got the task.

During his travels Mr. Gittings was greatly impressed by the courtesy and friendliness of the people of Houston, Texas then a town of 200,000. In the spring of 1929 he had saved up enough money to establish his own studio and decided to go to Houston to stay. Louis Fabian Bachrach was determined that Gittings should not end his relations with the company, so Gittings and Bachrach opened studios jointly in Houston and Dallas.

The start of the great depression was about as bad a time as possible for starting a new photographic enterprise. People did not have the money to buy pictures. After four gruelling years Mr. Gittings bought out his partner in 1934 and started out on his own. He now owns highly prosperous and successful studios in Fort Worth, Houston and Dallas.

Work Is Distinctive

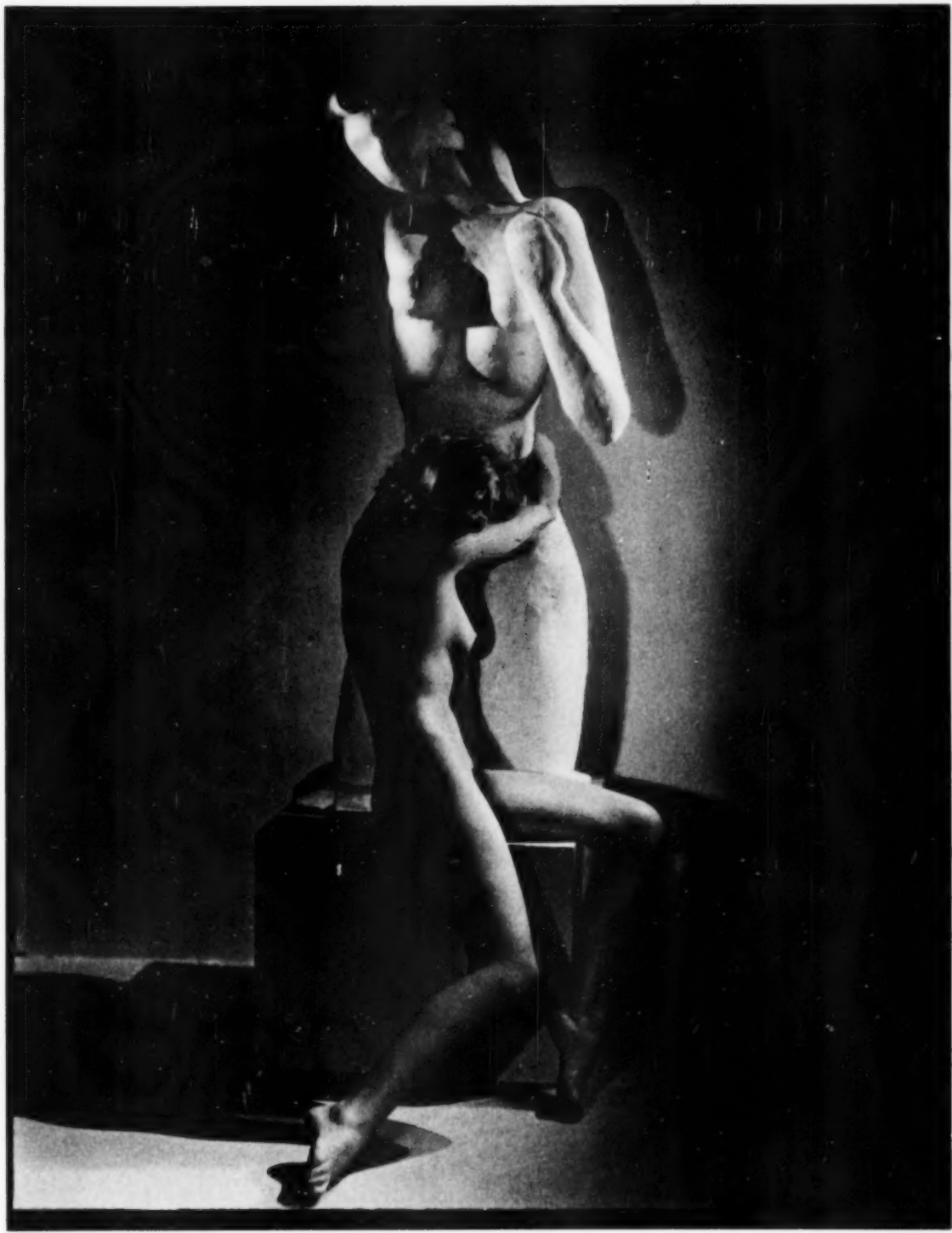
If you stood in front of a show window containing 50 photographs by various photographers, and if three of those pictures were by Gittings, you would have no difficulty in telling which were his. All Gittings' pictures are characterized by a photographic loveliness which makes them outstanding.

First and most important he has a keen photographic eye, backed up by the mind and training of an artist. His pictures are genuine artistic creations. Then he has flawless technique. Finally there are certain other mechanical aids, one of which is a Pinkham-Smith diffused lens which operates by visual focus at f/4. Besides the Pinkham-Smith lens, Mr. Gittings often uses an oval vignette made of semi-transparent material which is illuminated from the back and produces a softness and semi-fog of the photographic image which is immensely flattering, particularly to women. Most of his negatives are 8 by 10. The vast majority of his prints are on Gevaluxe paper.

Paul Linwood Gittings' photographic achievements are far from being limited to the field of portraiture. His landscapes, figure studies and photographs of children have been widely acclaimed. In the fall of 1938 the PSA circulated a one-man show of Gittings' prints. At the present time a one-man show of 100 of his pictures is being circulated by the Photographers' Association of America, having been hung in art museums, camera clubs and uni-

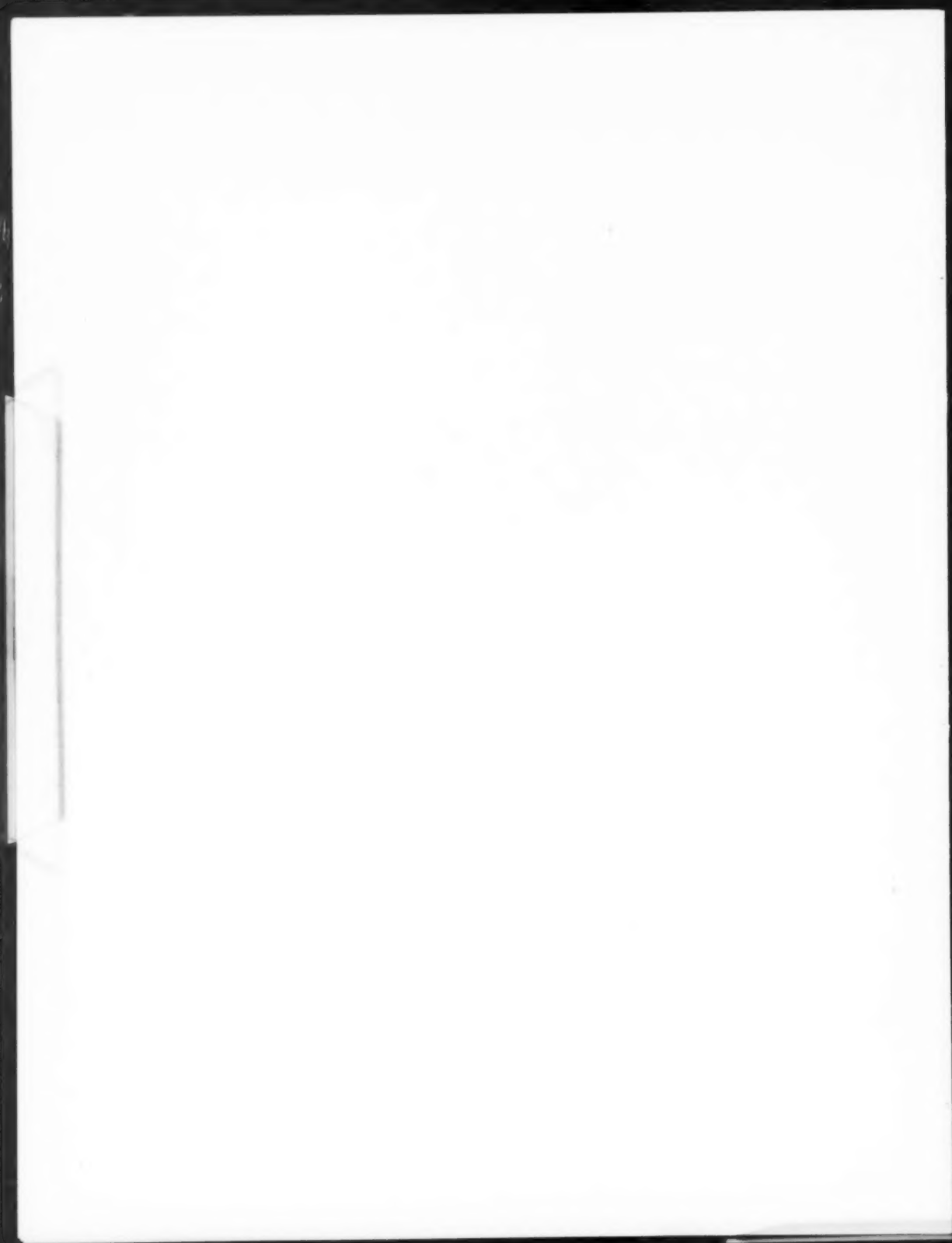
FUTILE GRIEF

This composition has been exhibited many times, in many forms. It is my only successful composition with three-source lighting. The main light, striking the front planes of the figure, seems to begin the composition. The cross light, outlining the breast and arm against the plaster cast, and giving definition and form to the legs by the shadow background, has a tendency to enhance the basic lighting, yet this fill-in light has been feathered so delicately that the strong shadow tones (on back and buttocks) have not been degenerated. The third source, striking and accentuating the grotesque figure, has only that as an objective; it does not interfere with the general lighting or composition. This print has been successful in salon competition in its present form, and also generously received in a panel composition half its present width.



FUTILE GRIEF

PAUL L. GITTINGS, FPSA



versities throughout the United States. The New York Camera Club, Boston Camera Club and the Maryland Art Institute in Baltimore are only a few of the many institutions seeking the privilege of displaying these Gittings pictures.

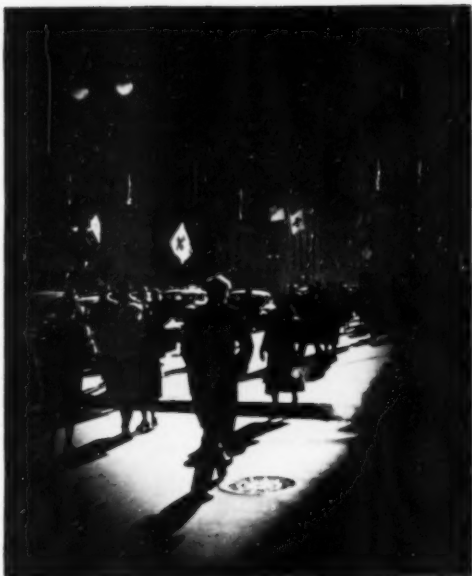
Future Plans

Regarding his own plans for the future, Mr. Gittings says: "I do not believe we have scratched the surface of photography as a means of artistic expression. New techniques and new printing papers will emerge as time goes on, giving us new opportunities. Unquestionably our work will turn more and more to direct color and we may probably expect some technique which will give at least an illusion of third dimension.

"In portraiture, speed lights have now become practical to a point where they, too, can be used creatively. They open broad new vistas to the serious portrait photographer and bring a volume of illumination into the studio equal to many sunlit skylights. They deserve unlimited experimentation and research by the creative portrait photographers of the country."

Mr. Gittings is a Fellow of the PSA and of the Royal Photographic Society of Great Britain. He has received his Masters Degree from the Photographers' Association of America. He is past president of the Southwestern Professional Photographers Association and is at present Portrait Vice President of the Photographers' Association of America. He married a Baltimore girl in 1924 and has a daughter of 13 and a son, aged 20, who is interested in photography as a profession.

He has come a long way since that day when an unfavorable opinion of a painting got him his first photographic job.



GRAND CANYON

The streets of New York, to a photographer from any place else, are catnip. Without knowledge of how to capture the spirit of the great metropolis better than the native New Yorkers, we still hopefully try. This early spring morning, with wisps of steam from the sewer, the gently moving flags and the brisk pedestrians is my idea of New York. You might call it an outlander's opinion, but it is probably shared by more people than those who would disagree. This print has never been entered in salon competition.

Photo Gelatine Printing **COLLOTYPE**

The following article explains the process used in making the inserts included in this issue of PSA JOURNAL and was written by one of the leading authorities in the Graphic Arts field, a member of the PSA Publications Committee. Editor.

WHAT is perhaps the oldest photo-mechanical method of printing, strangely enough, is the least known and least understood process used in the Graphic Arts today.

But Photo-Gelatine—or as it is often called, Collotype, is of particular interest to photographers, aside from the fact that it is the grand-daddy of present-day printing processes. It is the only photo-mechanical printing method which prints an image in continuous tone and, therefore,

By HARRY H. LERNER, APSA *

is the closest approximation to photography in image formation and appearance.

Almost every piece of printed material in magazines, newspapers and books, has been produced by either lithography, letterpress or gravure: printing processes which depend on a half-tone screen to break up the image into some kind of pattern. No such screen is necessary in Collotype and the transition from one tone to the next is smooth and even, the same as we get in a photograph. This important feature of Collotype is even

* President, Tricorn Press, New York City.



The author operating the overhead suspension camera used to make color separations with great accuracy. These cameras are electrically operated and focused by precision scales instead of visual examination on the ground glass.



Harry Lerner, APSA, at the rear of the camera, which protrudes into the darkroom wall. The camera can be operated also from inside the darkroom by another set of electrical controls. A latest model portable densitometer is seen at the right.



All photos by R. Nardoni

Plate-maker is shown pouring the bichromated, light sensitive gelatine onto the revolving aluminum sheet in the coating machine. Doors are then closed and plate continues to revolve at pre-set speed for definite time and temperature.

more apparent in color work where the depth of color and gradations are of prime consideration for accurate, effective reproduction.

We have mentioned that the principle of Collotype printing is the fore-runner of all photo-mechanical methods now used in Graphic Arts, such as lithography, engraving, gravure. Not only do these methods depend on a screen, but they also have another distinguishing feature in common, namely, a bichromated colloid is utilized to transfer a photographic negative or positive to a metal printing plate, which in turn is etched or treated to produce the printing surface.

Collotype uses the bichromated colloid itself, in this

case gelatine, as the printing surface. The process can be described briefly as follows: a sheet of metal is coated with bichromated gelatine and a photographic negative is exposed onto this surface. Bichromate has the unique faculty of tanning or hardening colloids such as glue, albumin, gelatine, etc., in the same proportion to which it has been exposed to light. The photographic negative modulates the light passing through it in the same way that a contact print is made, except in this case we obtain an image composed of relatively hard and soft gelatine instead of relatively large and small amounts of silver as in a contact print. The metal with the gelatine surface containing the image is soaked in glycerine and water, and the image will absorb water in direct ratio to its relative hardness. The tanned portions or shadows of the image will absorb very little moisture, while the softer portions or highlights of the image will take up much more water. When this plate is rolled up with a greasy printing ink, the image will take ink in relation to its moisture content since grease and water do not mix readily. So the shadows will take the most ink while the highlights the least. The inked image is transferred to a sheet of paper under pressure, then re-inked mechanically with rollers and is immediately ready for the next impression.

Although Collotype is actually the simplest method of photo-mechanical printing it is also the most critical. The relative moisture in the atmosphere of the printing room becomes a decisive factor in the quality of the print. The most modern photo-gelatine firms are air-conditioned and humidity-controlled so that uniform, dependable results can be achieved.

One of the chief limitations of the process is its inability to yield long press runs from a single plate. In



R. Nardoni

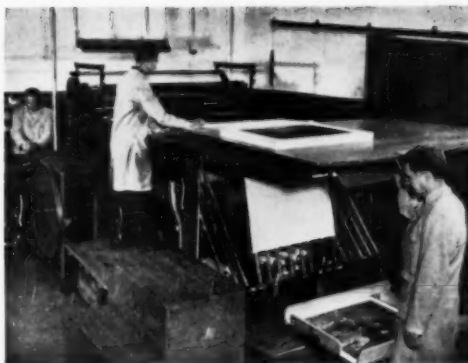
Layout and exposing room showing rotating vacuum printing frame being raised into position for exposing negative onto sensitive plate with motorized arc light.

Austria, France, and Germany, where the process was most popular, a thousand impressions per day from a Collotype plate was considered unusually good. American firms have pioneered important developments along these lines with the introduction of the Direct Rotary Press. This single contribution has made European Collotype obsolete with its old-fashioned Flat-Bed press. Not only has the American Rotary Press increased speeds more than five-fold but what is just as significant, greater uniformity has been accomplished at the same time.

Other important developments originating in this country in the past few years are worth mentioning for they explain to a large extent why more and more high quality printing, such as fine art reproductions of paintings, is being done here instead of being produced in Europe as heretofore. In this connection we wish to mention the following:

1. The Vertical Coater which yields more uniform plate-coatings.
2. Water purifying systems such as ionic exchangers.
3. The superiority in manufacture of American gelatine.
4. Precision atmospheric controls such as air-conditioning and humidity regulators.
5. Excellent quality of printing inks.
6. Research and advances in photographic techniques such as masking methods and superior photographic materials and equipment of great variety to suit every conceivable job. This is, by far, the most important edge which American Collotype printers enjoy.

Within the scope of its field of endeavor, namely, lim-



R. Nardoni

Printing press in operation with sheet about to be delivered to joggling tray as pressman checks sheets during run. Assistant pressman is mixing ink in background before refilling ink fountain.

ited edition press runs, Collotype printing has certain attributes that are worthy of consideration for those interested in the Graphic Arts. In depth of tone, sharpness of detail, long scale of gradation, the screenless image of a Collotype print offers superior beauty of reproduction that is most closely allied to photography and is unexcelled by other printing processes.



LONE BREAKER

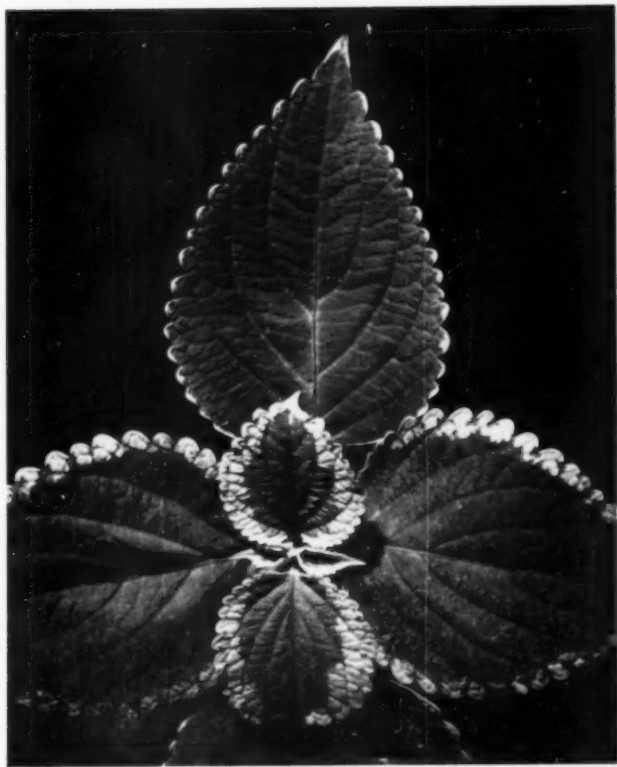
Chas. L. Wilson



MAC ROBBIE DHU

Louis J. Parker

NATURE



LEAF DESIGN

Carl Mansfield

A Recipe for Animal Photography

BY HENRY H. SHILDON

An intimate moment in the beaver family. Two youngsters nursing while one teases for his share. The old man, head down, was busily finishing his supper of cottonwood bark. A squeak made him look up.



WHEN a person sees a good portrait of an animal in the field, the first reaction is usually, "Wonder how they got so close?" On second thought that wonder is satisfied by remembering that a telephoto lens could be the answer.

A few decades ago the writer reasoned about the same way, a sort of slipshod thinking that ended with trial and then error. The telephoto lens certainly has its virtues and should be in every nature photographer's bag, but the way I wanted to get animals on film was by portraits of a studio type. Something like catching up with the animal, getting its attention with the "birdie" and firing point blank.

Needless to say at that time my knowledge of cameras and all that constitutes photography amounted to something like a Kodak, a roll of film, and an ambitious trigger finger. All of which suggests the importance of having a thorough knowledge of photography, which should come first as a means of picturing wildlife subjects.

It should go without saying that a general understanding of nature is important, and while knowing a lot about animals is certainly an advantage, the lack of that knowledge doesn't bar one from eventual success in getting good pictures of them.

At heart we are all naturalists. Civilization is just a veneer, under which lies latent the Woodcraft patterned by our forefathers. Despite the wild cunning of animals and their highly developed senses of hearing, sight and smell, they must sooner or later bow to man's persistence and his quicker wit. However, it is well for one to put his estimate of animal I.Q. up a few notches, for it takes more than a good ear to get in tune to the call of the wild.

My way of getting close to animals usually requires more patience than anything else—patience tied with a hard knot to one end of a fishline, the other end to your shutter—a squeak like a rodent, and presto! A portrait

of an animal is in your camera. A silly sounding formula, you might think? Actually those are the chief ingredients which will give you pictures of animals at their best. It all adds up to pictures by remote control, but the neat little trick that provides the animated pose is the squeak. If you can't imitate the squeak of a rodent or the cheep of a bird, your animal, which you have done well to lure to the focus of your lens, will be apt to look like an animal in a zoo, lacking the spirit and fine character which makes for a dramatic picture. That is the secret which finally perfected for me the simple procedure of tripping the shutter with a string.

As a case in point, take the photograph of the doe and buck. They were lured to this spot with a bait of raisins (which, by the way, a deer can't resist). Both had heads lowered to the luscious fruit. A hundred feet away I was under cover in a natural blind with the wind in my favor. I squeaked similar to a chipmunk. The buck, whose head was in the shadow, instantly came alive. He was about to stamp his foot, irritated because he was unable to locate the sound which was unknown to him. The point is, the squeak, though not a perfect imitation of a chipmunk, was nevertheless completely dissimilar to the human voice.

Squeaking is a trick used by naturalists engaged in research work to attract birds and animals. It is accomplished by holding the lips firmly and sucking at the corner of the mouth. One can become expert once the knack of it is learned. An accurate imitation of many kinds of birds and rodents and especially of a bird in distress can be attained. By cupping the hands at the mouth, the squeak can be much amplified. I have stopped a coyote to look and listen, a muskrat to turn in mid-stream and swim within inches of me; and all of the weasel family are easily betrayed by the cheep of a wounded bird. The mink here shown was stopped with

a squeak. This is mink character in a dramatic pose—the swift action of the animal running down the log to the water suddenly stopped in response to man's quicker wit.

Many times I have squeaked weasels close enough to touch. On one occasion I could have blessed the weasel. A party of nature fans visiting our city asked if I would take them to where they could see some birds. It was a gloomy day and I decided the beach would be the one best spot to find variety. The beach, usually teeming with sandpipers, plovers, curlews, and a dozen more species, was in this instance represented by one hungry looking gull beating the shoreline against a raw wind. This was a wretched showing for a community that boasted one of the finest natural history museums and a bird census of renown. To cover my chagrin I suggested a return to town, where a cup of coffee might help the situation. As we approached the cliff back of the shore, a weasel scampered up the steep slope. I motioned for a "freeze" and began squeaking. The weasel back-tracked to stop and stare within six feet of us and then sat up in a beautiful pose, utterly baffled by the screams of a captive bird. The bird gazers fell hard for that weasel and were somewhat intrigued with the squeak, which they practiced all the way back to town.

My camera is a Speed Graphic, 4 x 5, and the lens a 7½-inch flex f 4.5. (For portrait work, a portrait lens).

Birds and animals are so often found in deep shade that the flash gun has proved a real boon in nature photography. My camera is fitted with a Heiland gun to which is attached an 8-inch reflector. To avoid flat



A few sharp squeaks stopped this mink on his way to the river. Without the squeak, the picture would have missed being hung in many salons.

lighting, the gun carries a long cord which allows for proper placement of the flash. Sometimes I use a double reflector set with flash in addition to the flash gun. An electric release which plugs into the gun works in the same manner as a pull chain on a light bulb. To this pull chain a fishline is attached which, when pulled from the blind, releases the shutter synchronized with the lights. When the flash is not used, the line can be attached to either the front shutter or the back focal plane shutter. The latter I use only for fast action, rarely with remote control.

To demonstrate further, let's take the setup from scratch with a somewhat condensed account of how the beaver picture was made. I suspect the beaver has had a greater amount of publicity than any other of our animals. Volumes have been written about its fabulous history. Its habits have been told and retold, and yet after all I have read about beavers, combined with thirty years' of snooping around their habitats, seeing youngsters in the act of nursing was fresh beaver lore for me. And that, by the way, illustrates the unpredictable quality of nature. There is always something new to learn about the commonest species. Such knowledge is not often gained without considerable effort, but now and then Lady Luck and Mother Nature will produce a rarity to the woodsman whose senses are alert.

Finding this beaver home was one of those lucky breaks. This pair had found that a small brook running into the river was fed by a number of springs, which issued at the base of the mountain for some two hundred yards—a benchland above the bed of the river. A jungle of cottonwoods, alders and willows provided their food, while an almost impenetrable thicket of nettles and blackberry vines discouraged any human being except perhaps a nature photographer from discovering their sanctum. A big cottonwood tree caught in its fall by some alders indicated a beaver cutting. That was the clue which enticed me for a look-see. I pushed through the stinging



Five pounds of raisins, seven days of patience, and a squeak were most of what it took to get this picture.



These young horned owls peered at me from their nest but flew out when I tried to cut a branch which interfered with the picture. They allowed me to set the camera seven feet from them to get this shot.



Without flash this picture would have gone unheeded on a dull rainy day. There is always a picture in the making for the close observer of nature.

nettles to finally reach the waterway. Beaver tracks and slides lined the banks. I looked up the pond and dimly made out the form of a beaver sitting on a log. Very cautiously I continued to weave through the nettles for a better view and got to within about twenty yards. Then I "froze," for at that moment two baby beavers hauled out on the log, mewling and crying very much like a couple of pups except that the cries had a soft quality like the cooing of doves. Then for the first time in my career I witnessed the nursing act of the beavers. What a rare picture! As I stood entranced I began planning a setup. It would be a difficult shot—dark subjects in the deep shade—but lights would do it.

The water looked deep. Could I get the camera far enough out in the pond without bad reaction from the beavers? While I planned I could hear the boss of the family some distance up the pond chiseling an afternoon snack from the limb of a poplar. A kingfisher flew over my head to spoil everything with a scream of warning. Mr. Beaver slapped his tail with a bang and in one split second I was left with nothing but a memory.

The old water soaked log was the prop that made an almost perfect setup for the picture work which followed. One end of the log was imbedded under four feet of water and was about eight feet from the house situated in the bank. The beaver house is always entered by a subterranean tunnel. The living quarters are above the water level, domed on the surface with an impregnable collection of sticks and branches, through which is a vent for air. The log so close to the house made a natural hauling out place and the beavers, remote in their jungle hideaway, seemed to sense this protection, often appearing long before dusk.

On the bank opposite the log some fifteen yards away I made my blind in a dense mass of salmonberry, nettles and willows. The tripod was set out in the pond in water hip-boot deep thirteen feet from the log. The flash gun was lashed to a snag at the side and above the camera, and a tripod with another flash fifteen feet from the log. Both camera and reflectors were draped with willow branches, with no attempt to cover them completely. With my first setup finished, on the afternoon of the day following discovery, I waited two hours before a beaver dared to face the strange objects which looked like big eyes peering at them. However, these eyes were static and after a couple of days the entire family seemed to regard the whole business as more of a nuisance and hindrance to their way of life than something to fear.

First to the log was a youngster that paid not the slightest attention to the props. Any beaver was good to see after waiting two hours. It made a nice picture to see that little fellow nibble the bark from a twig, holding it in his deft hands like a musician with a flute. However, I held my fire. That first shot might be the only one I would get and that one would be a do-or-die attempt to get those babies nursing. Suddenly the head of the old male beaver broke the still water of the pond directly under the reflector tripod. He gazed up at it with a steady stare, apparently half wonderment and half fright. I almost quit breathing for fear he would slap his tail and

give the word for no publicity. The crisis was over, however, when he turned and swam easily away, casting a glance over his shoulder as though to be assured the thing was lifeless and immovable. Moments like this in a blind are what make the time fly and provide the antidote for biting mosquitoes which must be allowed to go unslapped.

About this time two more youngsters hauled out on the log and the suspense brightened the prospects for a picture. Sure enough one of the parents suddenly appeared in the dark shadows just back of the log. Now around the end in better light it proved to be the mother. She was darker than her husband, whose face from a side view was light brown. She floated up to the log and deliberately climbed aboard; then, beaver style, sat with her big flat tail between her legs, while the youngsters mewed and begged for their dinner. However, Mrs. Beaver was not ready to be nursed. She was too busy wiping the water from her face and combing it from the long hair that covered her deep furred body. I could hardly resist that picture—three youngsters and their mother, all in focus. Ah, but those babies nursing—that would be unique! And then as I grew confident, bang! went the old man's tail right below my blind. Almost as soon as it slapped the water the family plunged out of sight.

Another hour passed and I began to regret my stubbornness to sacrifice a good picture, which by now I concluded was gone forever. But patience finally brought the reward. As before, it was a baby that came out from the house, and then another. They investigated every part of the pool, then climbed to the log, wiping and combing just like their mother. A few minutes later Mrs. Beaver again dared to use the log as a boudoir and without much ceremony the two youngsters had their supper, buffet style, standing on their hind legs and holding the breasts with their capable hands, while mother nonchalantly combed her jowls.



At a moment like this you hold your breath. Birds can't "smell you out"—the blind can be close.

That was my first picture, a good one, but for lack of space I substituted one of the whole family with the youngsters caught in the act of nursing.

Sad it is to relate in conclusion that on my first and only attempt to get them in color, with a double battery of lights, a short in the gun exploded the lights with a frightening bang which put an end to the family union on the log, and I decided I had tormented them enough, so I quit with a collection of a dozen pictures, and only the high lights of eight days in a blind of nettles to remember.

MOTH PHOTOGRAPHY

By LOUIS QUITT

THE PHOTOGRAPHER who points his camera at nature has no off seasons. Never is there a time when the dust collects on his equipment and life becomes monotonous. Every month of the year has its own specialties to offer. In the early spring the flaming skunk cabbage vies with the robin to be the first to announce the delights of the approaching season. The frogs tune their flutes to greet April which comes with a promise of flowers. The year progresses bringing the time of the birds, the wonders

of insect life, the changing panorama of vegetation, and the time of harvest. The closing months of the year are the time for the nature photographer to start on winter projects. One of the most fascinating of these is the photography of the life of the silk moths.

To photograph the various stages of insect life does not require profound scientific knowledge or formal training in the study of entomology. Important contributions have been made by the casual observer in this field.

The attempt to picture your first specimen can very well become your introduction to many amazing experiences in the photography of nature.



The ephemeral beauty of the Luna Moth once seen is never forgotten. The exquisite green delicacy of its coloring is truly one of nature's masterpieces. A good subject for the color photographer.



The head of the Abbot Sphinx moth is hardly larger than the head of a match. With the use of a very short focal length lens (in this picture a 25mm movie lens was used), the amazingly complex structures of very small insects can easily be photographed.

The life cycle of even the lowliest member of the insect world can become a source of engrossing interest in the observation of the sequences which take place between the depositing of the egg and the emergence of the completed insect from the cocoon.

It is a fact that very little is known about the complex structure, the habits and the miracle of transformation which take place in the metamorphosis from egg to adult in these seemingly unimportant and insignificant creatures.

During the winter months insect life is at its lowest ebb, but this does not mean that all activity has ceased. This is merely a period of transformation from one stage to another as you will readily see for yourself if you devote some of your time to the activity which I shall describe.

Among the most beautiful of the winged creatures of the air is the many hued, velvety silk moth of which all species are easily obtainable in the cocoon stage from any dealer in biological materials. Of course, the life cycle of the moth consists of the same sequence of steps as most of the other insects—the egg—the larva—the pupal stage (cocoon) and the complete or adult form. At this time of year the work of picturing any of the silk moths can only be started with the cocoon which, as previously stated, can be obtained from a dealer or if you are a hardy individual you may obtain them directly from the woods.

The care of the cocoons entails very little trouble; they should be kept in damp sphagnum moss which may be obtained from any florist shop at very little cost. Under no circumstances should they be allowed to become dry.

The eggs of the Ailanthus Silk Moth are usually found on the leaves of the Ailanthus tree. Although they may also be found on Sycamore, Lilac, Linden, Wild Cherry and some other species. The eggs are little larger than pin heads and are found in small clusters on the under side of the leaf. A 25 mm lens was used at about 8 focal lengths given approximately a 7x negative image. The area covered in the picture is about a 1/3 inch square of the subject matter.





Polyphemus moth. The four eye spots on the wings are thought to be a means of attracting enemies away from more vulnerable parts of the body.

for any length of time, as the pupa inside the cocoon will die upon dehydration. It is best to have on hand several dozen cocoons as it is most disappointing to find that the emergences occurred while you were not present to observe them. Your chances of observing this phenomenon increases with the number of specimens which you have to work with.

About the middle of April you may hear a faint scratching sound from the container in which your cocoons are stored. When this occurs you will find upon observation that one of them shows excessive dampness on one

end. This indicates that the moth is ready to emerge, and you may expect it in about fifteen minutes from the end of the cocoon which is damp.

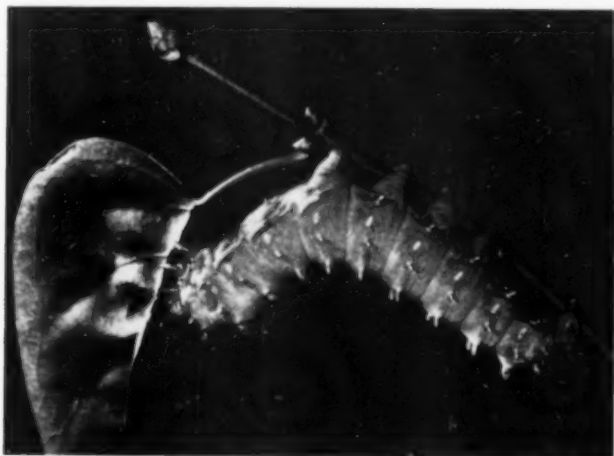
The moth upon emergence is a damp, crumpled, be-draggled creature whose first instinct is to find something from which to hang so that its wings may unfold and dry out. This is a beautiful operation to observe and worth all the trouble that you have gone to so far. The unfolding of the wings will take about thirty minutes. You will find that the moth is most tractable at this stage and will not move around unless unduly disturbed. Supply a twig or plant for the moth to crawl onto and on which you may photograph it.

Incidentally, it is not necessary to provide food for these insects as they do not possess mouth parts and do not eat during the two weeks of their life span.

No special photographic equipment is needed in this work, any camera which can be used for close-up work and has a focusing back is all that is necessary. Even a roll film camera fitted with a supplementary portrait lens and wire formed to frame the picture field at the correct focal plane will work successfully for either monochrome or color, if carefully handled.

Backgrounds are important in this work, and should be considered carefully. If you work in color it is wise to use those colors commonly found in nature—blue, green, brown, and black.

The interest in nature salon exhibiting is increasing and more nature shows are being organized each year. You can make this project the opportunity to acquire acceptable material.



LARVA

Alfred Watson

The giant larva of the Cecropia Moth is probably the most familiar of the Saturniids, being widely distributed and quite conspicuous. Regardless of the fact that the larva and moths of this specie have been extensively photographed the best pictures have not yet been made.



CAN SPRING BE FAR BEHIND?

Harry R. Reich

"Spring Offering," by Dom Chiesa—The top flower has been definitely established as the main center of interest. This is important. If two or more flowers had been of equal importance the picture would have suffered from divided interest.



Flower Photography

By DOM CHIESA, APSA

THERE ARE many advantages and one or two disadvantages involved in the photography of flowers. One of the advantages is that flowers are easy to obtain. They are everywhere. If you cannot get them from your garden you can buy them from a flower shop. Likewise, flowers will stay put. Place them in position before the camera and they will remain there for an hour or a day. Few other types of subject matter will do this.

If you are using artificial light, the light will remain constant. In this respect flower photography differs from landscape photography, in which the light is often "subject to change without notice." Flower photography can be carried on almost anywhere and at almost any time. You can indulge in it for an evening or for half an hour. It is likewise inexpensive. Even if you buy your flowers, the cost is not likely to be prohibitive.

So much for some of the advantages which the photographer of flowers enjoys. What about the disadvantages?

The principal disadvantage (and it is by no means exclusive with flower photography) is the fact that good, clean, sharp technique is not enough. You cannot simply make a fine, clear-cut "portrait" of a flower and have it accepted in the salons. For the making of a fine flower photograph it is necessary that you have a knowledge of arrangement—or "composition," if you want to use an overworked word. You cannot just plump your flower in front of the lens and have a picture. There must be a relationship between the various elements of the photograph, which is harmonious and pleasing.

All this is not said in order to discourage you. You can learn about arrangement, just as well as the next man or woman. It is no deep and mysterious secret. All that we are saying is that some knowledge of composition will be required if your flower photographs are to be in the salon class. That is no overwhelming hardship, however. Salon pictures are not easy to make in any category.

The most satisfying pictures of flowers are those which give the beholder the impression of being natural. This means natural in "pose" and natural in lighting. If the lighting is harsh and if the arrangement is distorted and ungraceful, the picture is bound to suffer. Before taking up the subjects of lighting and arrangement, however, it might be well to discuss what kind of flowers to use and where to get them.

Some flowers are more beautiful than others. Some

flowers lend themselves to striking arrangement much more readily than others. The two types are not necessarily the same. Because a flower is in itself very beautiful does not necessarily mean that it will lend itself easily to beautiful arrangement. This is a matter which deserves a little thought.

Flowers which are of exceptional loveliness include the iris, the gladiolus, the orchid, etc. Please note that the beauty of these flowers consists in their shape and textures. We are not at the moment discussing color. Flowers which lend themselves particularly well to arrangement include tulips, daisies, and similar round flowers.

In the beginning it may be well to practice making photographs of a single flower. This will teach much concerning technique, lighting, etc. Later we can delve more deeply into the subject of arrangement.

Vases

One of the initial questions which keeps bobbing up throughout our work in flower photography has to do with vases. Shall we use a vase in a given picture?

What are the advantages and disadvantages of vases? Many photographers prefer to make their pictures without the use of a vase. They believe that a vase—particularly an ornate and highly ornamental one—is likely to prove distracting by setting up a second and competing center of interest. Such photographers prefer that the vase, if one is used for holding the flowers, be not allowed to appear in the photograph. It is possible to support the flowers by placing them in the "frogs" which are made for use in flower arrangements. These little objects are of steel, glass or porcelain and may be obtained in flower shops and sometimes in dime stores. "Frogs" are not, of course, absolutely necessary. It is possible to put your flowers in a vase or other container and then to arrange the container in such a way that it will not show in the photograph.

If you decide to allow a vase to appear in the picture, be sure to select one which is of the right color and shape. The color should be such as to appear fairly dark in the picture, so as to give strength and solidity to the lower part of the photograph. Dark green is an excellent color. The vase should not, of course, photograph so dark as to show no detail in the picture. However neither should it be too light in tone.



"Harbinger of Spring." — Five tulips are not easy to arrange. However, in this photograph Chiesa has set up a most harmonious composition. Notice the beautiful curve of the flowers, and the careful placing of the foliage to give a "base" to the photograph.

A vase should also be simple in shape. It should not have a "loud" design painted upon it or moulded into it. It should quietly do its job without calling attention to itself. If you will devote a little notice and attention to vases you will find that some of them are simple in design, dark in color and attractive as to shape. This is the type to use in flower photography.

Lighting

Needless to say, the matter of lighting is highly important. Three types of lighting are possible—artificial light, daylight out of doors and daylight indoors. Each has its advantages and disadvantages. Artificial light has the advantage that it permits you to work at any time—day or night. It has the disadvantage of causing the flower to appear less natural than it does by daylight. Unless carefully used, artificial light tends to set up strong highlights and deep shadows. It is usually possible to tell whether a flower photograph has been made by artificial light or daylight. Since the aim is to make the flower appear as natural as possible, daylight is definitely the best.

If artificial lights are used they should be so arranged as to bring out the shape and texture of the flower to the greatest possible extent. One good arrangement is to place one light at the left of the picture and fairly close to the flowers. In this way the light will fall across the

blossoms, emphasizing their textures. The heavy shadows which are set up should then be relieved with a second or "fill-in" light located close to the camera. This light should lighten the shadows, without eliminating them. The shadows are important and should not be removed. However, they should be so reduced by the fill-in light that texture is discernible throughout.

If you are using photoflood lights, be careful not to place them so close to the flowers that they will be wilted. Any sign of wiltedness is fatal in a flower photograph, and must be carefully avoided. Therefore, do not subject your flowers to the heat of the photoflood lights any longer than is necessary to arrange and make your photograph. If you desire, you can work out the arrangements with the lights a little distance away, then move the lights in close and take the picture, then move the lamps away again.

Some photographers prefer to take flower pictures in the garden. They feel that the pictures are more natural in that way. If you are making your pictures in the garden, there are several things to watch. Try to avoid direct sunlight, as that gives harsh, difficult-to-print negatives in many cases. Be on the lookout for wind, for any movement in a flower photograph is likely to ruin it. If there is any breeze, wait until it dies down. You can, of course, open up your lens and shoot at a higher shutter speed. This will decrease your depth of focus, however, and may still show movement in the blossoms.

In taking pictures in the garden it is necessary to be careful concerning the background. Flowers in the distance may appear as out-of-focus blobs of light. Sticks, stones and other objects may prove distracting, and should be carefully cleared away. If you desire, you may put a sheet of paper or cardboard behind the flowers to isolate them from the rest of the garden. This will decrease background difficulties.

Perhaps the most satisfactory method of all is to take flower pictures indoors by daylight. To do this, select a window through which good, strong daylight is coming in, but not sunlight. A typical set-up used by this writer is as follows:

A window which is fairly high above the floor is used. The flowers are placed about 18 inches below the window sill, fairly close to the floor. The camera is located on a low tripod nearby.

The flowers and tripod are so arranged that the light reaches the flowers from above at a 45 degree angle. This brings out shapes and textures to the greatest possible extent. A white sheet of cardboard is sometimes used for a reflector, to illuminate the shadows just a little without eliminating them. If desired an electric light of low power can be used for this purpose, being kept far enough from the flowers so that it serves merely as a fill-in light, most of the illumination coming from the window.

What is wanted is a light which is strong enough to illuminate the flowers in a pleasing way, bringing out all of their lovely characteristics without being hard or harsh.

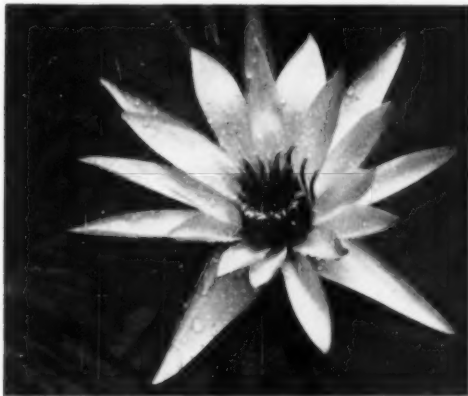
Such a light is often obtained when the day is slightly overcast or when there is a thin fog outside. Often on such days there is a surprisingly strong illumination, which is very soft and pleasing.

Backgrounds

Before discussing the arrangement of the flowers, a few words may be said concerning the background of flower pictures. The tone which the background has in the final photograph is most important. A white or very light background is likely to be disturbing. You may be tempted to use black. It is true that black backgrounds often seem to give great punch and zip to flower pictures. However, many people dislike backgrounds which are completely black, feeling that they give the flowers a sort of "cut-out" appearance. Black backgrounds may likewise seem somewhat unnatural, since complete blackness is not very common in scenes looked at by the eye.

The background tone most pleasing in flower photographs is a fairly dark shade of gray. Such a tone gives richness to the picture and brings out the beauties of the flower. If you make a study of backgrounds, and particularly after you have gained experience in flower photography, you will learn to recognize the shade of gray which is most desirable. It is a matter which warrants a lot of thought and attention, for many flower pictures are greatly enhanced by having background tones which are exactly right.

Almost any plain surface can be used for a background—a piece of cardboard, a window shade, etc. The writer uses a piece of heavy cardboard which is about 40 inches square. It is of light gray but takes on darker tones when placed at a little distance behind the flower. This background is large enough so it can be shifted without any edges showing. By constant reference to the ground glass the background can be turned toward the light or away



"Water Lily."—This picture of a single water lily was made in the conservatory at a San Francisco park. The beautiful light streaming in through the glass sides and roof of the building added to the attractiveness of the flower.



"Spring Arrival."—The picture space has been most carefully filled by the placing of these flowers. A base for the photograph has also been firmly established by the foliage.

from it until exactly the right shade of gray shows in the picture. This process is easier to do than it is to describe. A little experiment and experience will help a great deal.

Arrangement

Now as to the matter of arrangement. It was suggested previously that you start out by photographing only a single flower. With the camera on the tripod and the flower on a table nearby, move the flower about until it appears at its best on the ground glass. Devote some little time to this process, turning and shifting the flower until its best possible aspect is toward the lens. Refer constantly to the ground glass or viewfinder to check upon the appearance which the flower will have in the negative and final print.

Work close enough to the blossom so that it almost fills the negative. This will allow you to make your final print with less enlargement, thus preserving maximum definition and print quality.

When it seems to you that the flower is presenting its best possible appearance, and when the lighting, background tone, etc., seem satisfactory, expose a negative. Then shift the flower around a little more until the flower's appearance seems even better and make another negative. When you have made three exposures, take the negatives to the darkroom and develop them, allowing the flower, camera, background, etc., to remain in place. By allowing the set-up to remain "as is" you can come back to it and expose other negatives in case, after developing the first ones, it appears that you might be able to secure better pictures of the same flower.

In order to obtain experience and training in the photography of flowers it will pay to make a number of pictures of different kinds of single blossoms. This will give you knowledge of arrangement, lighting, background

tone, etc. After you have done this you will be ready to tackle the arrangement of several flowers in a picture. It is usually best to use an odd number of flowers—three, five, etc. Two or four flowers are more likely to be static in arrangement.

The first thing to do is to establish a main center of interest. This should be one flower which is faced directly toward the camera and which is in the strongest possible position in the picture space. There should be no mistaking the fact that this particular flower is the center of interest.

The other flowers should then be grouped around it in attractive positions. Some should face in one direction and some in another. Often it is possible to arrange them in a curve, so that an invisible line, drawn through them, would traverse the picture space attractively. It is usually best to include some of the foliage, to add to the naturalness of the flowers' appearance. However, do not use so much foliage that the flowers are submerged and lost. Make sure that there is, at the bottom of the picture, a good, firm "base" so it will not appear that the flowers lack support. Sometimes the foliage, sometimes a vase, sometimes the mere fact that the background is made to appear darker can be used to supply this base.

Arrangement is difficult to describe and fairly difficult to do, particularly in the beginning. However, you will find that thinking and experimenting will teach you a good deal. Another good source of information is to watch the way flowers grow in the garden. Nature is constantly setting up beautiful rhythms.

You can also learn much from studying fine flower photographs made by others. Watch the magazines and exhibitions for them. Study them to see how the flowers are arranged. This is in no sense copying the work of others or stealing their ideas. By looking at fine pictures you absorb a fund of knowledge without setting out to copy any particular picture.

Cameras

There are a number of technical matters concerning flower photography which may be touched upon briefly. First, what kind of camera shall you use? In taking up the photography of flowers you will be fortunate if you possess a ground glass camera of fairly large size—say 3½ by 4½ or 4 by 5. The ground glass will make it easier to see exactly how your arrangement of flowers is going to appear in the picture space. By constantly referring to the ground glass while you move the blossoms about or alter the lighting, you can tell when you have arrived at the best possible arrangement. The larger size of negative is an advantage in securing better print quality. It is a little easier to get fine print quality with a larger negative than with a small one.

However, we do not wish to suggest that you must buy a special camera in order to take flower pictures. Use whatever camera you have, but learn to use it to the best advantage. Very beautiful flower photographs have been

made with 35 millimeter cameras, in the hands of skillful workers.

Print Quality

You should strive for the best possible print quality at all times. Fine, rich tones pay dividends in flower photography, for this subject matter shows up particularly well when carefully printed.

Among the factors which contribute to good print quality are development of the negatives by exact time and temperature, in fresh developer. Paper developer should also be fresh and at the correct temperature. Exposure in the enlarger should be as nearly correct as possible and should allow you to leave the paper in the developer for a sufficient length of time to bring out the full richness of tones. One of the foes of fine print quality is the "jerking" of prints out of the developer too soon.

You should at all times strive for the sharpest possible focus. There is no place in flower photography for softness or diffusion. Fine blossoms do not need to be flattered by being diffused. Their own innate loveliness is a challenge to make negatives and prints of maximum sharpness. Clean lenses on camera and enlarger will contribute to this.

Since you can expose your negatives for any desired length of time (unless you are working out of doors when a breeze is blowing) it is not necessary to use the fastest possible film. A film of medium speed will be likely to minimize any tendency toward grain and will give good quality.

Any surface of paper which pleases you may be employed for flower photographs. Some people like to make their flower pictures on glossy paper and thus gain maximum sharpness and brilliance. Others prefer a surface of semi-gloss or semi-matte. Use whatever paper gives you the effect you desire and which seems to yield the best print quality.

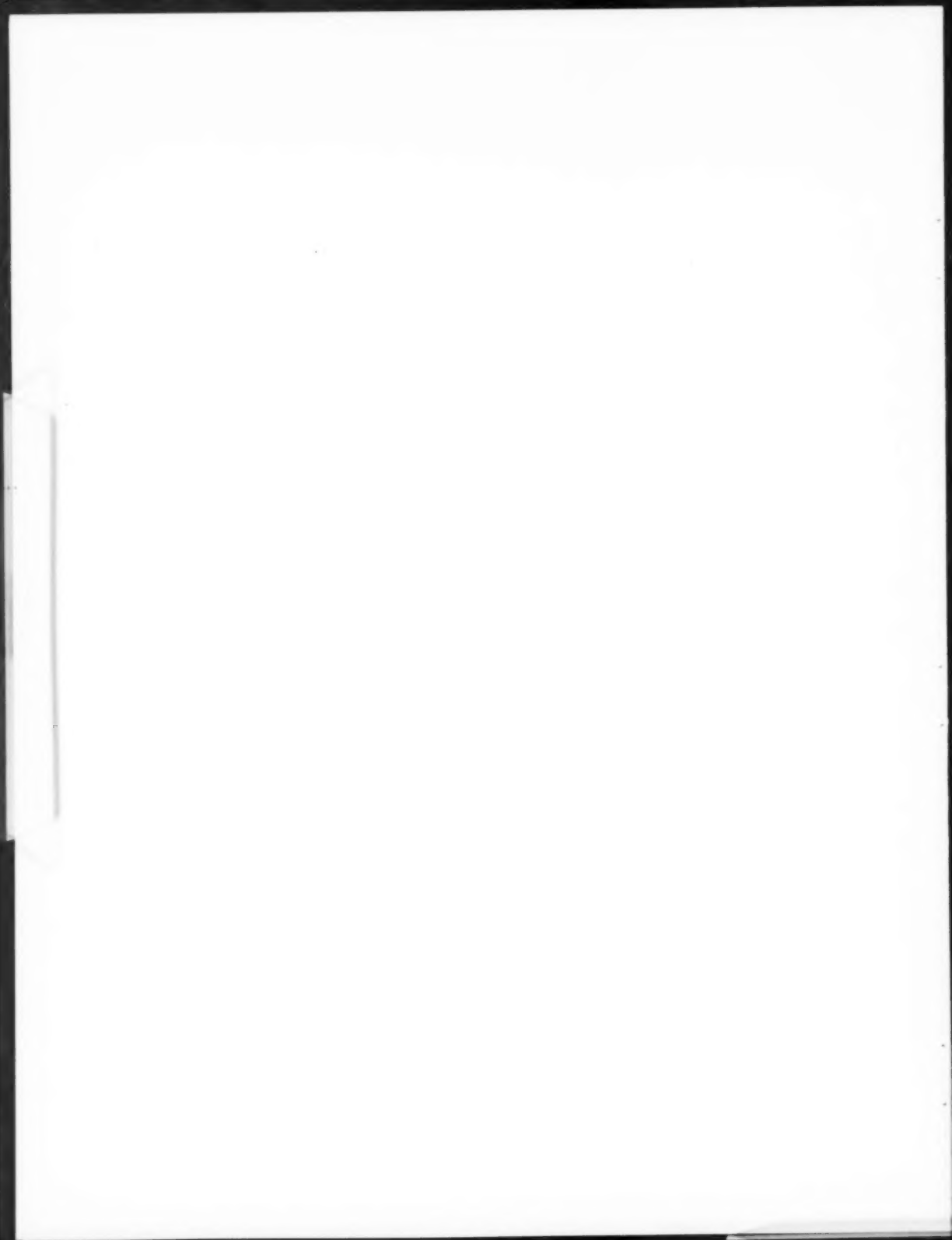
Toning adds to many flower photographs. It should be carefully done, however, and should be in a color which is appropriate to the subject. Blue, brown, green, etc., are sometimes used. However, they should be employed in moderation. Strident and vivid colors are likely to take away more than they add to your flower pictures.

All of the discussion in this article has had to do with photography in black and white. It is not necessary to point out that flowers offer magnificent subject matter when handled in color—either transparencies or prints. If you take up the photography of flowers you will almost certainly want to do part of your work in color. However, even if you eventually plan to invade the field of flower photography in color it will pay you to serve a long apprenticeship in black and white. From that apprenticeship you will learn things about arrangement, balance, lighting, background and kindred matters which will serve in good stead whenever you, a camera, lights and some flowers get together for an "enchanted evening" of photography.



SNOW DROPS

FROM CHIEF AUSA



CREATIVE PHOTOGRAPHY



CALL OF THE WILD

Irma G. Haselwood



Outdoor- Fashion PHOTOGRAPHY

● Text and Illustrations by Fritz Henle *

In the minds of many people, fashion photographers supposedly occupy very large studios with the most elaborate and expensive of lighting equipment. Ample supplies of props of all types are at hand, including complete assortments of antique and modern furniture, expensive drapes, and other luxurious trappings that are reminiscent of a Hollywood studio. Immaculately attired models are instantly available to assume the ideal pose for the photographer and this fortunate artist, of course, is ably assisted by others who accomplish all of the work under his direction.

Actually, of course, a fashion studio has little or no similarity to this popular conception. The photographer's day is filled with hard work and the constant pressure of deadlines. Selecting the right model, obtaining props for the picture and the ever-present strain of always trying to produce a "different" picture are daily problems.

The fact that the continuous excitement and pressure in a photographic studio sometimes is equal to a last-minute stage rehearsal (and results in exhaustion at the end of a day's work) was one of the reasons why I decided to take fashion photography out of the studio. There are several advantages in shooting fashion photographs out of the studio. First of all, there is a most obvious virtue of having a practically infinite number of beautiful outdoor backgrounds. Since fashion pictures must continually

* Reprinted from the May-June 1949 issue of "The Ansconian", published by Ansco, Binghamton, New York. Copyright 1949, General Aniline & Film Corp.

● Left: This beach fashion shot of the girl and driftwood was made in the late afternoon for Town and Country magazine. Supreme Film, 1/25 second f/8 with yellow filter.

Fashion shot in which the locale types the informal costume. Supreme Film, 1/50 second f/11.





Above: An illustration for advertisement in Harper's Bazaar. Was made on a Long Island farm in late afternoon. Supreme Film, 1/50 second f/8 with light yellow filter.

Below: This unusual shot was taken during a snow flurry at Aspen, Colorado. Supreme Film, 1/10 second f/11 to show motion of snowflakes.

be different, this almost endless diversity of settings and backgrounds provides one good method of obtaining the variety necessary.

Demands on photographers for seasonal types of pictures have always been a problem because, as a result of the long period between deadlines and appearance dates, they frequently come when the season wanted is many months away. This is particularly true with color work because of the longer time required in making color plates. This seasonal problem is easily solved when working out of the studio. A request last winter for some bathing suit illustrations was handled by making a trip to Sea Island, Georgia which proved to be an ideal location for this type of picture. On another occasion a client requested some winter pictures in April and as there is no snow in New York City at this time, we went to Aspen, Colorado where ideal locations were found for illustrating winter sportswear.

In using the world as my studio I have been on assignments that have taken me to many distant locations. For example, I spent a month taking pictures for "Mademoiselle" in Mexico and toward the end of last year I was on location in the Virgin Islands doing a series of illustrations on winter sun fashions for "Holiday." Other assignments have taken me to Scotland, to the Bahamas, and to the snowy peaks of the Rocky Mountains. Just a short while after that I found myself in Hawaii. The photographic variety possible through such travels can be readily realized.

The problems associated with using the world as a studio place rather strict limitations on the photographic equipment used. The transportation of heavy gear is practically out of the question as I generally travel alone. Consequently, I have selected the twin-lens reflex camera and have used it almost exclusively for the last fifteen years.

This type of camera, incidentally, was not too readily accepted by the editors of fashion magazines. However, once the early struggles were over, it came to be regarded as an extremely valuable instrument for capturing not only action but mood. The flexibility and versatility of this type of instrument, the fact that pictures that would have been missed with more unwieldy cameras could be taken in a split second has, I believe, led to its widespread acceptance in the field.

When working on far-flung locations, the photographer must, of course, be able to depend on both his camera and film. I have therefore found it good practice to standardize on the sensitized materials I use. Besides giving me confidence in

Right: A beach scene for Town and Country magazine.





A fashion shot made at Christiansted, St. Croix, Virgin Islands. The soft lighting and carefully worked out arrangement of the picture elements made this an exceptional photograph. This shot appeared as a full-page illustration in Holiday magazine. Diffused sunlight and Supreme Film, 1/100 second f/11.



An example of the unusual in fashion photography. This diffused sunlight shot of an evening dress was taken on a lonely beach. Supreme Film 1/50 second at $f/11$ with a light yellow filter.



A winter shot that gets attention. A moving subject and the careful use of props resulted in this successful photograph showing a winter sports ensemble.

the film's performance, it also helps to reduce the inventory which I must carry with me. I use Ansco Supreme for all my black and white work and Ansco Color Film for my color photography.

Because of the large expenses involved, careful attention must be paid to advance preparations for a trip. The client, of course, supplies the clothes to be worn and models are very carefully selected and are approved by the client in advance. In order to conserve time travel is usually by air.

Because of the expenses involved, I usually make my trips without any assistants and generally take only two models along. For the same reason all my work is done on specifically assigned projects. The expenses involved in transporting models and equipment together with hotel accommodations, etc. are too great to undertake on a speculative basis.

Regarding general techniques, I shoot many of my pictures with the camera held in my hands, for this provides a freedom of movement and flexibility that are invaluable. When more careful study of the subject is required, a tripod is employed. For supplementary lighting, I prefer using a simple white reflector for filling in shadow areas, or, if possible, placing the models near locally available reflective backgrounds. I have never used synchronized flash as a supplementary light source, because I do not like the artificial effect that often results.

I have completely discarded the notion that brilliant sunshine is necessary for successful outdoor pictures. The fast lens equipment and the depth of field available with twin-lens reflex cameras enable photography under almost any type of lighting condition. Pictures can be made during late hours of the day and while it's snowing or raining. On one assignment I even went so far as to take photographs of a model wearing a beautiful evening gown while a very strong wind was blowing. While this was an utterly unconventional approach to such a subject, it should be remembered that many of the buyers of fashion illustrations are looking for just this type of unusual mood picture.

After exposure all my films are immediately shipped by air mail to my studio in New York where they are processed by my assistant. The films are developed in complete darkness for at least seven minutes and then brief inspections are made at short intervals with the use of a dark green safelight. This method of processing has proven very successful over a period of years as it gives complete control over the contrast of the final negatives.

Landscape fashion photography is by no means without problems but it is my feeling that the results obtained are well worth the difficulties encountered. The beautiful blue Caribbean, the open field of a farm, the cold majesty of the snowy Rocky Mountains and the vast expanses of lonely tropical beaches are sights that could be found nowhere else, and they all assist in the creation of fashion pictures that are truly unique.



This shot showing sailing fashions was made in the Virgin Islands for Holiday magazine. Supreme Film 1/50 second f/11 with light yellow filter.

Beach shot made at Sea Island, Georgia, for Town and Country magazine. Supreme Film, 1/50 second f/11 with light yellow filter.





Sea Island

BEAUTY

The aged trees and lacy Spanish moss were chosen as a fitting setting in which to show the delicacy and detail of this sheer costume. The carefully chosen camera angle gave the dress a luminosity which enhances its beauty and gives it a predominate position in this outdoor fashion photograph.

Shadow areas were purposely not illuminated, so that primary emphasis falls on the luminous dress, rather than on the model. The care which the photographer exercised in choosing his subject, background and lighting gave this unusual illustration a style which caused it to be used as a full-page illustration in *Town and Country* magazine.

The picture was taken in the wintertime at Sea Island, Georgia. A twin-lens precision reflex camera was used and exposure was 1/5 second at *f*/8 on Ansco Supreme roll film. A light yellow filter was used.



From a painting by Jan Houtij

ABOUT THE AUTHOR

Born in Heidelberg, Germany, Fritz Henle was the son of a surgeon. He attended the Munich School of Photography, and upon his graduation in 1931 he began his travels around the world. The publicity department of a large shipping concern commissioned him to work in the Near East for two years.

He arrived in America in 1936 and worked for *Life* magazine for four years. In 1938, his travels took him to England, Scotland, Holland and France. Fritz Henle has been a free-lance photographer since 1940. His work has appeared in many of our top periodicals, such as *Town and Country*, *Harper's Bazaar*, *Mademoiselle* and *Holiday*.

Creative Photography*

By JACOB DESCHIN, APSA

1. WHAT'S ON YOUR MIND, PHOTOGRAPHER?

Most amateur photographic efforts miss fire because the photographer lacks the basic philosophy that picture-making is a medium through which he can express ideas about people, places, and events he himself knows. As a result, his pictures have scant meaning. He does not fully realize this, either because his thinking on the subject is hazy or incomplete or because it is influenced by someone else's ideas and therefore lacks conviction.

First, find something to say. You wouldn't sit down to write a letter without some idea of what you wanted to write about. How, then, can you expect to take a worthwhile picture unless you know what you want to record and, more important, why you want to record it?

Most people work so many hours, play or follow other activities the rest of the time. They spend their working hours in one environment; their leisure hours, probably in another. Each environment affects them in some way, and they react, emotionally and mentally, according to their natures and their backgrounds.

Everybody reacts. Feelings and thoughts are not the gift or the prerogative of a few. We all have them, for we would have to live in a vacuum to be entirely free of our surroundings, of the multitudinous incidents and experiences that go on all around us, demanding our attention, provoking our responses. Also, each person responds in a unique way. What is noteworthy to one may be nonsense to another, and each has his reasons. And the way each

I find it difficult to believe that there is anyone fully unable to say something about the world which is imaged in his mind and heart.

—Ansel Adams

person thinks and feels about his world is the index to his personality, the mark of his individuality.

Since we all have these experiences and feel these responses, why is it that, as photographers, amateurs seldom reveal them in their pictures? What holds them back? The know-how? Simple impressions have been recorded with inexpensive little cameras and no more than box-camera technique.

You don't know what you want to say? Nobody can tell you better than you, yourself. You are afraid to picture what you really see? Afraid of ridicule, of being different? Ashamed of your experiences, your environment, your job, your social status?

Then give yourself status. Dare to be individual. Speak your mind photographically. Don't turn away deliberately from the real things and real feelings that you know to empty artificialities. Face your life and its realities. Try to understand them and learn to reveal them through your camera. In that way you will grow, both as a person and as a photographer.

Creativity

Don't let such words as "art" and "creative" scare you. Their meaning is very simple, and the rewards of merit they imply are within the reach of every photographer who is willing to make the effort to earn them. But watch out for misinterpretations of these words, which distort their real meaning and make them much harder to understand and to apply to your own work.

A photograph is said to be a product of "art" when it shows skill and taste, and the photographer is called "creative" when his picture shows that he gave it some thought and imagination. So far, fine. But confusion enters when the same terms with the same definitions are illustrated by examples that are completely different in



An atmosphere of intimacy pervades this candid shot of the friends Robert Flaherty, FPSA, and Jo Davidson.

* Condensation of first three chapters of Jacob Deschin's "Say It With Your Camera," published by Whittlesby House, Inc.

depth of feeling and meaningful values. One picture will make you wonder why the photographer went to so much mechanical trouble to produce a technically perfect print but forgot to say anything in it; the other will show good technique, too, but somehow you don't think of looking for perfection because the story it tells holds all your attention.

I think we are safe in saying, then, that you "create" when you introduce a meaning into your picture that is your own; and that you work in the opposite direction, that is, imitate or at best add nothing, when your picture has no meaning or is similar to a picture made by somebody else. We should not overlook the fact, incidentally, that imitativeness was ingrained in us as part of our school training and that it is not going to be easy to subdue the habit. Nevertheless, we know we must, if real creativity is our goal.

By this definition, anyone can be creative who thinks, feels, and makes some effort to interpret his subject matter imaginatively. Some people may be more creative than others because they perceive more deeply, have a better imagination, or can put down their impressions in photographs with greater clarity. However, it is also true that any person will "see" more or less intensely, relative to a particular experience, on different occasions under different circumstances. The variation will depend on the freshness of his mind and sensibilities at the time, as well as on other factors.

The point I want to make is that creativity is not some unattainable gift reserved for a small group of the elect. You can be creative, and I can be creative, more so at one time than at another, if we give our imagination full rein and if we try. If we try to get under the surface of things, to understand what they mean, and to say something of real value about the subjects we photograph.

We can be creative if we try to be ourselves, to observe as individuals, confident in our capacities to make mature statements about life in photographs. It is as simple—and as hard—as that.

Being Original

"Originality" is another of those words which, like the word "difference," is frequently misconstrued. The first has been decried as impossible of achievement, because "everything has been done before, there's nothing new left, so what *can* we do except copy," and the second has been equally misinterpreted by one of our leading teachers of pictorial techniques. "Everybody is calling for something different these days," he told his class. "In the old days we didn't use figures in landscapes. Today we use figures. That's difference."

Actually, "difference" has the same meaning as "originality," namely, uniqueness of concept, a special way of seeing subject matter—not merely physical difference, which is trivial. Originality is in fact akin to creativity, in the sense that the photographer who possesses it is able to see values in a way which is uniquely his own. The subject does not matter, nor the way it is arranged. The eloquent movement of a hand, the way the light falls, a bold compositional treatment, or a particularly revealing



A pattern of lines used as commentary.

facial expression, any of these may turn a familiar impression into a fresh—and original—idea.

Vitality in Pictures

One of my readers once asked me what I meant by the phrase "vitality in pictures." I had not realized until then that the term might not be self-explanatory to everyone. The question drove home to me again the danger of taking certain words for granted in photographic literature, since their meaning, therefore their application, can be interpreted in different ways by different persons—sometimes harmfully—and to some may mean nothing at all.

Vitality, I thought, is the quality of aliveness in a picture as opposed to the static, or the passive. But is not this the principal goal of the photographer in all his work—to put life into his pictures and so fulfill the camera's chief function: to mirror life? My reader's question astonished me, particularly since he was a teacher of photography. If the import of such a seemingly obvious essential of worth-while picturemaking were not readily understood, then photography was in a bad way indeed.

Vitality is the composite of a number of attributes which, together, identify a picture as a living experience vividly portrayed. The term can be used to describe importance in the subject matter and can also refer to the depth of insight shown by the photographic treatment. But unless the second is present, the first can easily be lost. For the quality of vitality is introduced in pictures by the photographer and is, in fact, his responsibility as well as his opportunity. We have only to visit a pictorial

salon to realize how much damage an unimaginative photographer without insight can do to vital subject matter.

A portrait can have vitality because the subject has this quality and the photographer has made the most of it; or because the subject has other qualities, such as great sensitivity, which the photographer has reproduced in a vital way, that is, with a truly understanding approach and with great feeling. A photograph of a landscape can have vitality—and so can a water scene or a flower or even a few blades of grass. The subject does not matter. I have seen pictures of action, which are inherently full of vitality, turned into static records by the mumbo jumbo of pictorial “control” manipulations. It all depends on the way a photographer sees his subject and the way he reproduces what he sees.

If we use Webster's definition of “vitality” as “the power of enduring or continuing,” then the word means that “something” in a picture which gives it lasting interest. That is, you can look at such a picture again and again without tiring of it.

Impact

About “impact.” The word sounds arty and phony, but only because it has been misused. Recently I chatted with Dorothea Lange, famous West Coast documentary photographer, about a certain school whose students are taught “expressive photography.”

“They talk and they talk and they talk,” she said, “but the result in their pictures is just a squeak.”

“What do they talk about?” I asked.

“Impact!”

So you see it can be overdone. Impact is not something you talk about. Your picture has it or not. Impact is present in a picture as the natural result of the vitality discussed above. Vitality and impact are two facets of the same thing. The first is put into a picture by a responsive and competent photographer; the second is the photog-

rapher's reward—a pronounced effect upon an appreciative observer.

Impact, therefore, is the chief essential in communicating the content of a picture. But too much preoccupation with it may lead to artificiality. When photographers talk about “zip,” “zingo,” and “punch” in their pictures, watch out. They may mean only empty sensation—what the advertising photographer calls “shock value,” for example. “Never mind trying to say anything in the picture; just hit ‘em, make ‘em look.”

Is that good? Yes, to my mind, if you can look at the picture again afterward and still like it. No, I say, if “shock” is all you get.

Realistic Pictures

Even the term “realistic,” which certainly ought to be clear enough, has been erroneously strapped into a synonym for “documentary” in its narrow sense. That is, it has been made to denote a class, or kind of photography instead of being applied, as it should be, in the fuller sense defined by Webster: “fidelity to nature or to real life.” What is so “documentary” about that?

Everything you photograph is realistic if it reflects your impressions of the life around you. Real things are not only the people, streets, houses, and all the other tangibles that exist in your world. Things are real too when you infuse reality into them through a special way of “seeing”—your special way. Thus, you can lend reality to a mood by photographing it and printing it in such a manner that you make others feel the mood about the way you did. You can add reality of deep significance to a seemingly trivial object, like the detail of an old house, a stick of splintery wood found in an alley, or a cloudscape.

The realistic approach in photography is actually nothing more—or less—than telling the truth, as you understand it, about the subject matter you photograph. Anything less than that is not only unreal but may even be dishonest, as in copying verbatim the ideas of others.

2. HOW MUCH KNOW-HOW DO YOU NEED?

Want to become a photographer? Just press the button and you're in!

Maybe that sounds like oversimplification, and it is. But let's look at it this way: When you feel very happy, you sing, or you laugh, or you go around giving away cigars. You want *everybody* to know you are happy; so you tell them in these and other ways.

Does it occur to you that singing is an art, that before you can sing properly you have to know how to read musical notes, train your voice, and practice endlessly? Of course not. You are happy, and you do sing. Technically, it is bad singing, but you get something off your chest.

You have something to say, and you say it—somehow. It's the same with photography. You carry your little box camera around, and suddenly you run across a subject

First find something to say and then find something to say it with.

—Arnold Newman

that interests you. You point the camera toward the subject and press the button.

When you see the print, you may find a lot of things wrong with it. Technically, it is bad. But you've got an image—some kind of image. You have your say.

You may have a friend who knows a good deal more than you do about technique and even knows how to make very fine prints. You see pictures in the magazines, in books, and at exhibitions, and they all look better than yours. But when you compare your technically poor print with a lot of these others, you may find that somehow they do not touch you at all. They lack something. You

are not quite sure what it is, but you do know they don't mean a thing to you. Maybe, with all its faults, your picture is better.

All *you* know is what you learned from the instruction leaflet "that came with the camera—the barest fundamentals of manipulation—but what "comes out" of your camera—good or bad technically—is a record of something *you* felt, understood, and appreciated. For the time being, the result is completely satisfactory.

Given a choice of your print and those other pictures you do not like in spite of their perfection, I'll take yours any time.

Photography is Expression

Here's why. Photography in its purest, basic sense is like any other natural outlet for expression: fundamental, untutored, spontaneous. You use the camera as a third eye, the "recording eye," as an extension of your vision—to catch an expression, an incident, an attitude, etc., that your eyes have seen and your mind and sympathies have evaluated as interesting, exciting, and revealing.

You react spontaneously, impulsively. You want to shout, "Look there!" You point your camera, and you press the button. The result is a real picture, in a way a self-portrait. Every picture is a self-portrait—or should be—of the kind of person you are.

What about technique? Of course you need know-how, but that can wait a while. You need know-what first—and more. Know *what*, feel *what*, have some idea of *what*—then aim the camera and press the button.

Say it, say it, say it! Never check that impulse to say it. Technique, the means of disciplining, of directing your statement, will come later. It will come when your needs demand more know-how, when you feel yourself growing creatively mature, when you have more to say than your limited knowledge permits, when you find that what you say—through the pictures you take—is somehow incomplete, the pictures no longer say what you mean, what you see.

When your questions become more frequent and your technical needs more complex, this "spoon-feeding" method will become too slow and inadequate. You will

then be ready for some kind of formal training. By that time, however, you will have become immune to harmful influences, for you will have built up a photographic philosophy of your own. All you will want is more know-how. You will know what to do with it.

By that time, too, you will have learned that know-how and know-what go along together, inseparably, and that your desire for more technical knowledge is motivated entirely by the fact that the lack of it keeps you from saying the things you want to say with the maximum of clarity.

Techniques Are For Expression

Photographers have become so technically minded that they are in danger of losing sight of the main goal, which is to use the camera as the means without parallel for conveying the ideas and feelings of the photographer as an ordinary human being. Equipment, accessories, materials, and techniques are only the vehicles for the photographer's observations in terms of graphic images, which he uses in place of other mediums of expression, like writing, music, painting, etc.

Like these others, photography as a craft requires skill and understanding of the medium. But just as music, painting, and writing can be hollow expressions if the heart and the mind of the performer are not in them, so in photography mere technique will produce only trite, useless messages.

Should it not be a lesson to photographers that as the medium grows technologically, imagination seems to be less prevalent? We have more techniques and tools than we know what to do with, literally, yet we keep piling them on, without stopping long enough to learn how to use them properly for expressive ends.

If I have given the impression that we should go back technologically to the horse-and-buggy days, I apologize. The improvements being made in the tools available to the photographer certainly should help him to perfect and extend his capacity for expression over a much wider range. The only question I have is: Why don't they? Each photographer must give the answer for himself.

3. YOU'RE ON YOUR OWN

"Aw, be yourself!"

You have often heard the remark—spoken kidding fashion but with a strain of annoyance. Insincerity and a false front are fairly obvious in a person and are rejected as such. But in a photograph the same faking is condoned and even applauded.

Imitiveness is a kind of faking, for it tries to give the impression of original work, thereby hurting no one but the photographer himself, who eventually relaxes into the false assurance that his imitations are really his own creations.

"Imitiveness is the amateur's greatest fault," Erwin

Photographers must understand that they have to see with their own eyes and not with the eyes of other photographers.

—Erwin Blumenfeld

Blumenfeld has said. "Too often photographers take pictures only of the matter and in the manner they have seen in the work of some other photographer, instead of discovering ideas for themselves."

Actually, imitiveness is based less on the lack of ideas than on the pressures from all sides to conform to



A pre-school group reacts appreciatively to a story, even though the little girl may be thinking of something else.

established standards. The desire to think for yourself and to act accordingly is discouraged and penalized by denial of the reward that comes only with conformity: approval by your colleagues.

In photography, many such pressures exist in one circle of workers or another. The virtue of objectivity and the tolerance of other viewpoints than your own are extremely rare. We tend to make evaluations in terms of black and white: "Either you make pictures the way we do, or else. . . ."

The situation once prompted W. Eugene Smith to remark, "Let's not try to bend everyone's will to our own will. Possibly this is a period of confusion in photography whence a clearer idea of its function will arise."

Confusion will be yours indeed unless you realize that you can get nowhere as a photographer until you have the courage to strike out for yourself. Lacking that resolve, you can either throw in your lot with those who inhabit that never-never land of mental and emotional fog called "salon pictorialism," or join the documentarians, at the other extreme, who are not faultless either, because they, too, frequently imitate each other.

Before you decide, let's examine your problem together.

But first, the picture in general. Photography is the flourishing medium that we know it to be principally for one reason: people find in it the answer to their need for some medium of expression. Pressing a button and turning out a picture goes a long way to fulfilling that need.

Photographers have all sorts of backgrounds: they think, feel, react in many different ways; have individual personality traits. Why do they allow themselves to be pushed into a mold, turn out the same kind of pictures as everybody else in their group, lose their identity in a meaningless melting pot of vague generalization?

Specifically, why must you?

Why must you borrow a personality when you have one of your own? Do you think yours is not equal to the opportunity? Do you think you are not good enough, that your ideas are not important?

Then think again. Because you're wrong. Every person

is important; each person by himself as an individual is important. And you are no exception.

Trust your own reactions. Say what you think; make it a habit to stand on your own feet as a photographer; be yourself. Your rewards will be far more valuable than the ribbons and medals of the salons. You will have a sense of achievement, of pride, of self-esteem and self-importance. And your pictures in consequence will be better—because they will be your very own.

Lack of confidence in himself makes the photographer an easy prey to conformity. Once he gets real ideas, however, the desire to put them across becomes so strong that self-confidence is induced by the sheer pressure of the need to say something. To the point, in fact, where even timid persons find it easier to be "different."

But difference is not enough. The desire to be original may lead even the professional astray. Ezra Stoller, speaking for his fellow architectural photographers, says that some photographers, self-consciously artistic, use dramatic, exaggerated angles to get startling effects under the illusion that they are photographing creatively. It is their business to give something to their picture, but sometimes they go too far, with the result that "too often you can't see the architecture for the picture."

Forced Effects

A photographer in another field relies on forced photographic effects to get "eye appeal." In yielding to the temptation, familiar to experimental photographers, to do something different in the belief that difference means, or can make for, originality, this photographer sacrifices conviction and directness. The basic premise of experimental photography is that the so-called "limitations of photography" often lie less in the available techniques than in the vision and imagination of those who use the techniques.

Diversification is one way to battle conformity. The more kinds of photography you do, the more self-confidence you will gain, and the better you will be prepared to make pictures your own way.

There is an extra advantage to widening your horizon of interests, to looking outside of photography for stimulus. Photographers tend to be chauvinistic, as if the making of pictures were the be-all and end-all of life. Photography is a means of stating your opinions on what you have learned about life. But it should be obvious that your opinions will be worth little unless you take the trouble to find out what life is all about.

Knowledge gives conviction. When you are sure of your ground, nobody can bully you into doing or saying—or photographing—something else. Therefore, get knowledge; and while you're at it, get understanding too, and sympathy. Observe, feel, dig deep. Reach for bedrock until you are satisfied the subject has yielded its essence of meaning and significance for you. When this happens, conformity will have hard sledding. You will know too much—and feel too much—to put up with a fiction and a mask.

You will want to show what you have learned and to

show it in the most realistic way you know. And the way will be yours, not one dictated by a cliché.

Nor an imitation, as in one example I recall. An interesting picture of an overhanging ledge of snow brought this comment from a fellow pictorialist: "Where can I find a snow ledge like that?" Obviously, his interest was not in creating his own pictures or in generating his own picture ideas; he wanted to shoot the same subject—and probably in exactly the same way.

Pretty sad? Yes, but more pitiful is the fact that the instance is typical of an attitude of resignation—the inclination and the habit to accept and appropriate the ideas of others because they fit the specifications and because that is the easy way.

Particularly am I concerned about the pure novice in photography, who doesn't belong to the camera clubs, can't tell a pictorialist from a documentarian—and doesn't much care—and who simply wants to shoot pictures. What are his chances for developing an original approach in photography? I should say that his are the best of all, if he can manage to stay away from the influence of the established ideas of any one group long enough to develop opinions and a viewpoint of his own.



The coziness of the home interior is pointed up by the outdoors signs of winter, particularly by the starkness of the tree branches. All photos by Jacob Deschin, AFPSA.

College Bulletin Covers

By JOHN H. VONDELL, FPSA

THE TAKING of bulletin covers has given me about as much fun as anything I have done in the line of photography. It has called for imagination, constructing sets, and then the carry-through to get a picture that tells the story. The pictures have had to be relatively simple, but sufficient. It has sort of whetted my appetite, and kept me out of the rut of camping on just one type of subject matter.

As long as it has been done as a hobby I have been able to be deliberate and try out schemes. Usually, the Extension Editor has given me the title of the bulletin and I have had free reign on the cover.

The five pictures with this article show a cross-section of some of the covers. Probably the one calling for the most work and patience was "Chick Production." I had written this bulletin, and naturally wanted a cover that had eye appeal, design

and originality. The idea of production suggested something with a line of chicks coming from somewhere. I first tried a drum with the chicks coming over the top directly toward the camera. This required too many

chicks for me to manage and the effect was too muddled.

So, this side view was designed and required only four chicks to tell the story. The whole set was made of cardboard, corrugated board and a few wooden cleats. The real job was getting four chicks to sit still long enough for a 1/100th second flash. Two bulbs were used to give some back lighting. Floods would not work as the heat put the chicks to sleep. And this was a patience job, without the use of rubber cement. I took several shots, one of them in color being used on a magazine cover, and another variation was made into a successful salon print.

But, the "Rat and Mouse" shot took even more time. In the first place the mouse was a real live, untamed animal that the Rodent Control service had caught. Naturally, we could not let him run around so we wired his body to a small stick, then could shove him around anywhere. At the left is a box of rolled





*Illustration by [illegible] for [illegible] Series
Cover, 1950, 1950, 1950, 1950, 1950*

Feeding the Pre-School Child



*Bound by [illegible] Service, Massachusetts State College
Amherst, Massachusetts, October 1940, 1940, 1940, 1940, 1940*

oats that we punctured in order to get something for him to nibble on. A cookie jar was set a couple of inches away and when ready the mouse was shoved between the two and flashed at 1/200th. In making the print the top was darkened considerably as well as the sides, in order to dramatize the set-up.

Pictures of youngsters are so common that it is difficult to get one that is different. For the "Pre-School Child" I wanted to get something that would show a healthy youngster in a carefree and attractive environment, and be totally unposed. There is a nice little pasture just outside of town that contains a number of low

hummocks and has been a good place to take shots showing a lot of sky. The little girl was turned loose and I followed her around with the Graflex. Of course, I took a number of shots but this little unposed bit of action seemed the best. Everyone knows that child photography calls for a lot of patience and ingenuity. And someday they seem to do just the things you want them to do, and other days there is no response. I have taken hundreds of pictures of this little girl and have learned the limitations of her patience.

Most bulletin authors are willing to leave the cover situation to someone else realizing that they have taken care of the factual material in the bulletin and the cover design does not have to teach. But, once in a while an author comes around with rather definite ideas about what they would like on the cover. This happened with "Tools for Sewing." The author brought 13 articles to me saying that they should all be on the cover. I fiddled with them, took one shot, then selected 5 items and set up this cover. The background is an ordinary mount. A low spot gave cross shadows and one flood was used for general illumination.

I have always gotten a chuckle out of the "Gummed Tape Dress Form" picture. For this cover I had the

THE GUMMED TAPE DRESS FORM



*Illustration by [illegible] for [illegible] Series
Cover, 1950, 1950, 1950, 1950, 1950*

choice of a room full of these gals. After looking over the assortment and reading the names, I selected this pair as the best models. The slender one was placed on a low stand to give variation in height. Then it was a lighting problem. I used three lights at various heights and probably took at least half an hour arranging them. Anyway, they were patient and the only women I ever photographed who didn't talk back.

The Illustrations

On the following six pages are a variety of collotype reproductions from a number of fields of photography.

The portrait on the opposite page is by Arnold Newman of the famous sculptor, Jean Arp. Then follows, on page 653, a magazine cover by Hal Reiff, of New York. Jacob Deschin has chosen two representative documentary pictures by G. J. Davis and Dan Weiner. "Festival Procession" illustrates how gangsters have taken over religion in the Italian section of a U. S. city for their own purposes. Robert Varnall Richie has contributed an outstanding industrial shot, while the photo on page 661, by Victor Keppler, represents the finest in the advertising field.

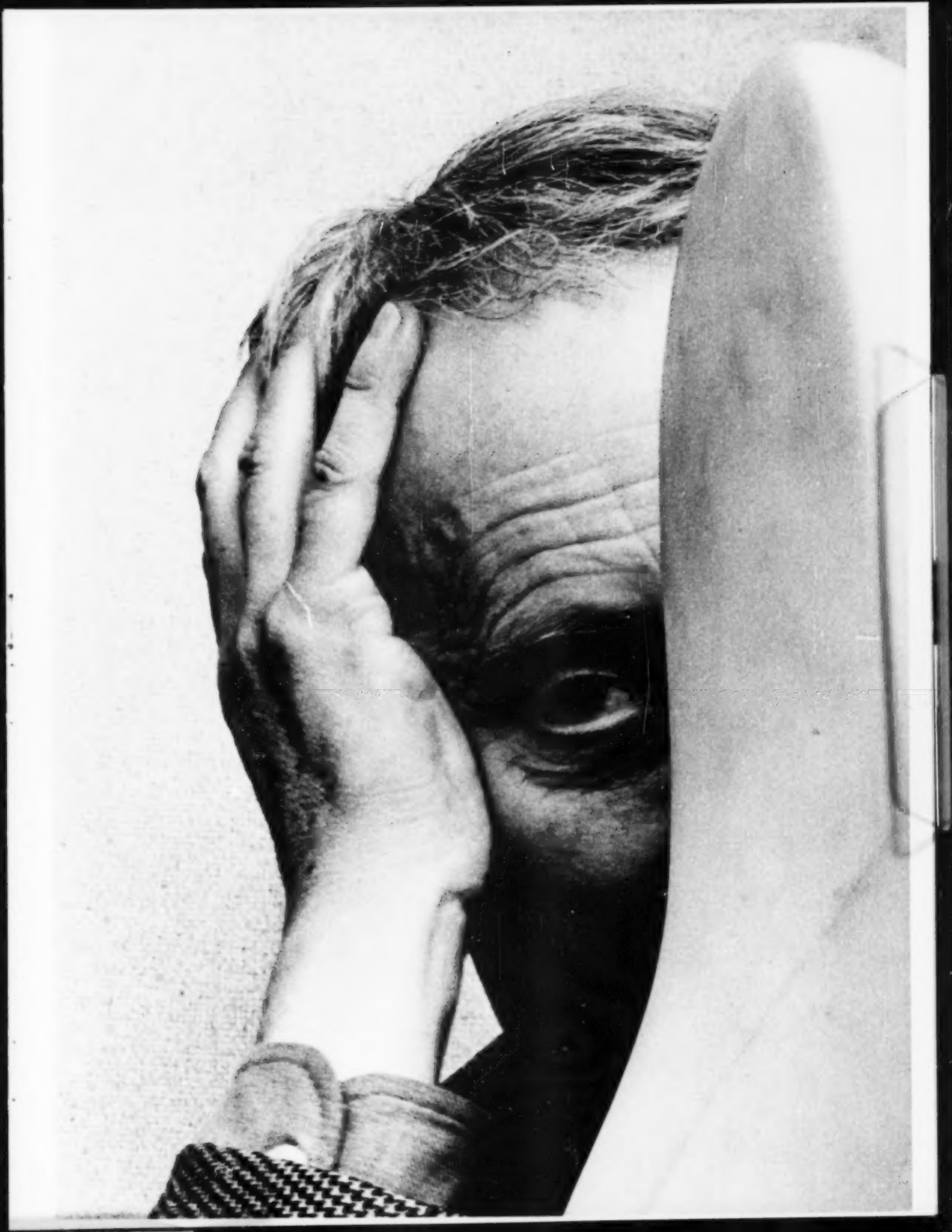
A young and outstanding PSA member in Sao Paulo, Brazil, Thomas J. Farkas, is represented by four excellent architectural studies, which demonstrate what can be done with a miniature camera and a little imagination.

Grateful acknowledgment is made to the Kodak International Salon for the plates on pages 594, 595, 620, 667, 678; to the Rochester International for pages 621, 627, 702; and to Reading Salon for page 679.

TOOLS FOR SEWING



*Illustration by [illegible] for [illegible] Series
Cover, 1950, 1950, 1950, 1950, 1950*







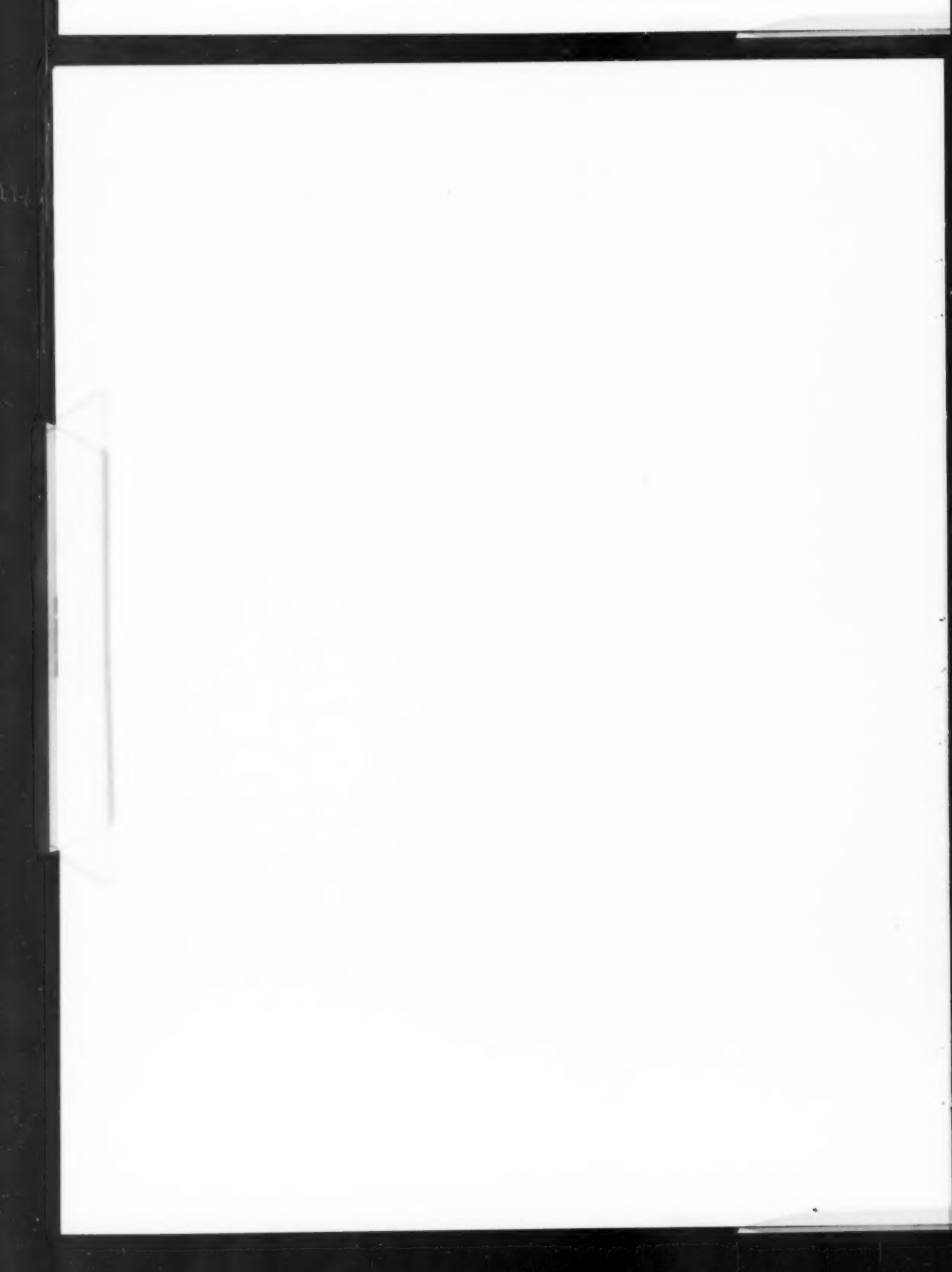
Courtesy Charm Magazine

HAL REIFF





G J DAVIS





FESTIVAL PROCESSION

DAN WEINER

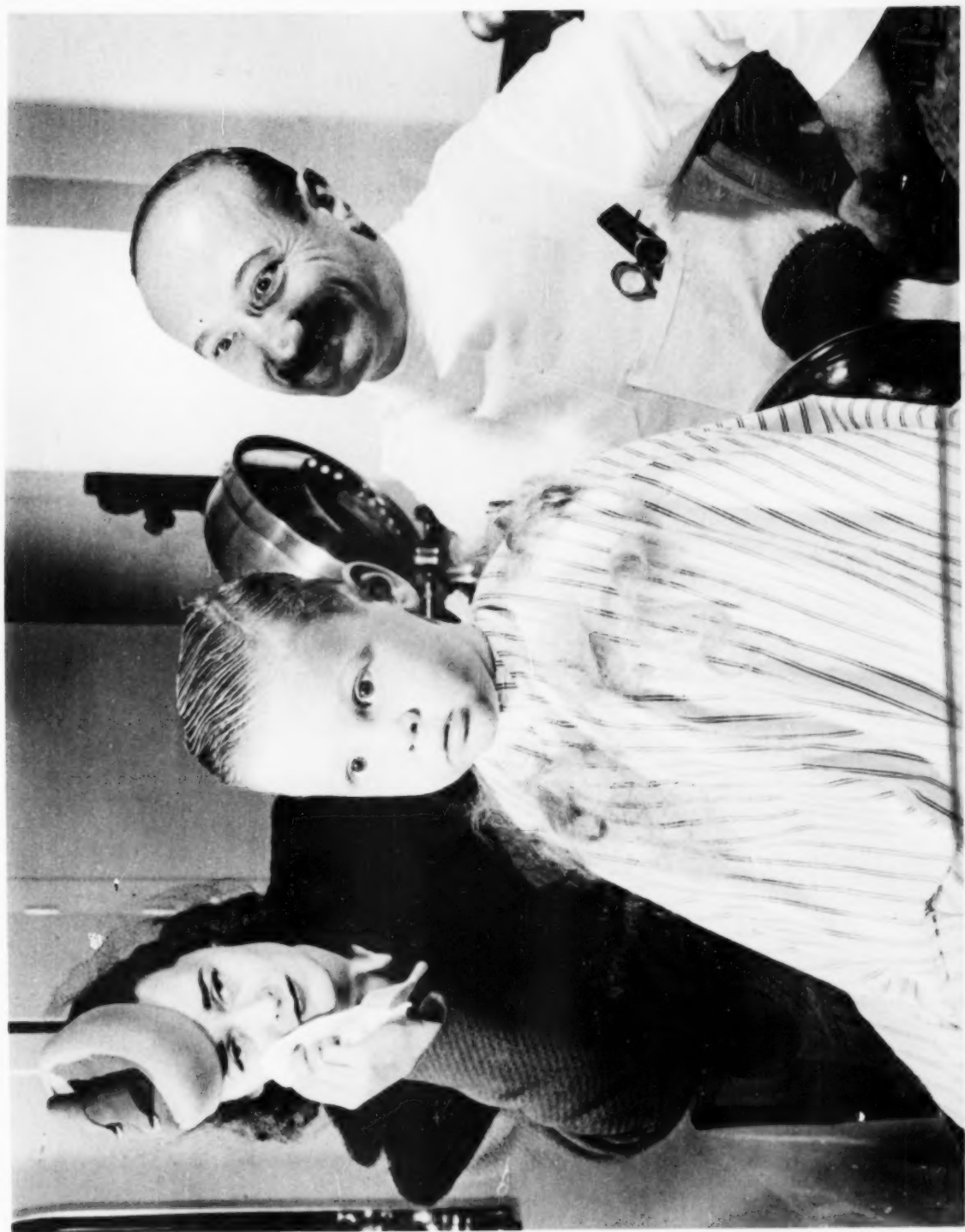




Courtesy General Motors

ROBERT YARNALL RICHIE









Thomas J. Farkas



Thomas J. Farkas



Thomas J. Farkas



Thomas J. Farkas



GIVE UP?

Virgil O. Smith

Singing Pictures*

By H. LOU GIBSON, APSA

WE WOULD all like an alchemist's formula that would show us the way to make successful pictures everytime. But there isn't one—fortunately for our creative efforts, that flourish mainly on stony ground. Nevertheless, there are ways to cultivate the soil of aspiration.

A few years ago I discovered that I could readily write verses to express the themes of those few prints of mine that had had wide acceptance. With the junkers I couldn't get a single poetic thought. Of course, there were a few prints that in salons had experienced the life of a bewildered bob-o-link in a badminton game and yet which *did* strike a poetic gleam. These, however, were found to have, on *honest reappraisal*, poor technique. Some have been redone with success because the theme was basically good. Others are going to be remade with hope. However, the ones that didn't beckon the muse at all are going to be used to keep the darkroom warm on cold nights.

I also discovered, as playing this game of poetry and pictures became a pleasant pastime, that if I got an idea for a verse I almost automatically got an idea for a picture. And everyone knows ideas for pictures, and even reasons to keep on making pictures, are not easy to come by. Even with an urge to create, we all need inspiration—achievement in salons, camera club contests, love of nature and beauty, relaxation, combining photography with other hobbies—all can help.

I have my own opinion about the meaning of the first discovery. It means that salon judges *do* appreciate something more than technique in a print. (Isn't it refreshing to read something nice about salon judges!) But if they seem to lean toward technically excellent prints, it is because they have been forced by a paucity of examples of photography as an art to hail photography as a handicraft.

No, I'm not trying to mount the pedestal of the artist and to be disdainful of the pinnacle of the craftsman. There is plenty of climbing left for all of us. What I *am* trying to do is put into words and pictures what I know is the motivation in all who have an urge toward creative photography.

It doesn't matter what our equipment is; or whether we use f/64 or paper negatives; or whether we wax or sandpaper our prints; or whether we make snow scenes or photograms; or what we do with our pictures. Photography is the transmutation of thought into silver. And it is the thought that counts, because the moment we exhibit our print to someone we are trying to convey that thought to him.

Now, one who conveys thoughts has certain obligations

to the recipient thereof. Primarily the thought must be expressed in the viewer's language. A classical theme means nothing to one without a classical background. Save such themes for a classical audience, but don't sneer at the "people." You too are of the people and you are worth talking to. And it is a greater art to talk to the people than to the classicists. For the first you have to find the vital phrases of the living and your art is in their finding. For the second you can pick out the poetic connotations already made for you by the dead and your art is merely one of appropriateness in their choosing.

The second obligation is that the thought must be poetic. Not only with the poetry of beauty but also with the basis of all poetry—*disclosure*. The viewer has to be grabbed by his cravat and made to listen to what the photographer has discovered. The landscapist will say: "You have often walked these hills, but have you ever studied the beauty of the trees climbing up their sides to reach the light?" "You have cursed the snow many times, but have you ever considered how it refreshes your life by sweeping civilization's ugly dirt under the mat for a while?" The documentarian will shout: "You have *noticed* these people and these conditions every day but what have you *done* about it?"

The nature photographer is an explorer at heart. He wants to make us stop and really feel the beauty, the infinite variety, the intricate architecture, and the kinship to man he has discovered in his subjects. Character portraits make us *see* the kindness, wisdom, greed, vigor, vanity, and the other heights and depths of human nature in the faces we merely *look* at every day. News photographs are action studies that do the same. Mood pictures make us realize how many experiences we *have* yet how few we *live*. Creative photography must do with light and shade what poems do with words. It must make the viewer *feel* something—he must smile, reminisce, think, gasp; or feel remorse, envy, happiness, sadness, hope, elation. The work of art must cause an emotion to the ones to whom the artist is making his disclosure.

The third obligation is that the photographer must be true to himself in theme and technique. He must put his *own* thoughts into his pictures. He should look at himself from all angles and find out what *he* has to say. He may not always get his thoughts across, but he should always know, himself, what he means. Everyone thinks differently, even about the same subject. It is not creation to echo the thoughts of others. We are free to think as we like, though what we do must be done for the common interest if it is to be widely acceptable.

There will be photographers of highly individual outlook who cannot talk the language of the populace. They must expect little acceptance and understanding of their

* Title, pictures and verses, copyright by H. Lou Gibson.

work. Nevertheless, they won't gain by adopting a false viewpoint and thus enslave their expression for a mess of plaudits. It is better to be alone than in the company of a chain gang. There will be others with a gift for brightening the commonplace who will sigh for the moon of abstraction. Yet their souls will not breathe long in that thin air.

To be true to photography as a technique is as difficult as loving a Hindu goddess—there are as many techniques as she has arms and faces. The battle rages fierce between purism and control and between this control and that. Us angels had better tread a more rational path.

It is impossible to rigidly define a "true" photographic rendering. What is a true image on the ground glass—one with the lens at $f/8$ or $f/64$? Which gives true perspective—a 2-inch or an 8-inch lens? Which film is true? Which filter? Which gamma? Which paper grade? Which printing time? How much dodging if any? Is holding back a dark area with a filter or a paddle "photography" and holding it back with dye on the negative "hand-work"? Let's stay out of the battle and give everybody a chance to make pictures his own way. If we can produce poetry in pictures with a generally permissible technique let's be true to that technique and make our images as visually satisfying as possible.

To take a specific negation of truth in technique, imagine how false a print from a paper negative would look if the main picture had the natural meanness of the medium but certain parts were so worked-up as to appear smooth. Visible handwork is an example in the other direction; the bulk of the picture is photographic while the handwork is characteristic of another graphic art.

The sanest trueness to adopt is to avoid making photographs that mimic some other form of graphic art merely for the sake of mimicry or because of a subconscious shame at having to use a camera. We have not had the benefits of talent and training in painting or drawing. Our only hope for expression is to create an image and impart a disclosure by means of a camera. Is it not a good image technique with a vital theme that constitutes our art?

Since few of us have had the benefit of training in art, we must "play by ear." But we are playing for each other and that makes our efforts as spontaneous as a jam session and as honest as whittling. The main thing is to play something. Don't worry about lacking an artistic channelling because many who *can* paint perfectly can't paint poetically. Just as, too, many who are trained in literature can write technically perfect verse but not poetry; they are rhymers not poets.

Of course, mastery of photographic technique and pictorial composition is important in carrying your theme. Every effort to practice these aspects should be made. Proficiency will come with persistence and study. But make technique a means not an end.

Anyone can achieve a good technique through hard work. On the other hand, a poetic outlook, using the definition of "poetic" already given, is a more inherent quality. And it is inherent in all of us who have an urge for creative photography, whether we realize it or not.

It will come along if given mental room to grow in. The force starting it to grow will vary with the individual. My modest efforts at producing "Singing Pictures"* were sparked by the following circumstances.

Photographers, with such reproaches as "darkroom widow," are often accused of being selfish in their hobby. Come to think of it, how much do you share your hobby with the wife and children? I didn't share much until I started making up verses for various family members—mainly the little ones, who, like all little ones, have a natural liking for rhymes. The verses were tied in with pictures; or a poem would suggest itself and a picture would be made to fit. That's what started the game. It is amazing how little incidents to us are real drama to children. (So why not make up an album of pictures for your children and insert little verses underneath for their enjoyment—and your enjoyment when they've grown up?)

Then other poems and pictures were produced for older members and verses were tried merely for experiments in picture analysis as stated before. Some were intended to be serious, others humorous. A selection is given here in the hope that you would like to experiment with the possibility of getting picture themes in a similar manner.

To enlarge on the pictorial aspect of a poetic theme, consider "Autumn Chords." I have often thought that a row of bullrushes, undulating along the edge of a marsh, look like a line of autumn music. Several years ago, I tried to photograph them as such, but a good composition would not come. Then I thought of a group of them as chords; brought some into the house; and photographed them as such. The result was "Autumn Chords"—my first salon print. Now, that was a "poetic" approach to photographing bullrushes, although I didn't realize it at the time. Recently, I had no trouble in producing a poem to fit.

As an example of the reverse approach, that of finding a picture for a poem, we can take "Sanctuary." The idea for the poem came first and it was written with no print available. Then, on hunting through many of my architectural negatives, I found one little corner of a 35mm film that seemed to fit exactly. A proof print showed many technical imperfections but the shot could not be remade because the cathedral no longer exists. The negative required much corrective work. This probably would not have been done had there not been the need for illustrating the verses. But I believe the trouble was worthwhile and the print has been well received.

We can try both ways. We don't have to worry if the poetic results are not great poetry—writing masterpieces requires training in literature. But we can write by ear and try to produce poetic verses, or at least poetic themes, if not poetry in its sublimest sense. Our first attempts at illustration may not be photographic masterpieces either, but at least a poetic idea for a picture is established for further tries. If we do not have any luck with poetry at all, how about collaborating with a friend who is a poet but not a photographer? Object: more poetry in pictures.

* Copyright, H. Lou Gibson.

Autumn Chords

Bullrushes whispering in unbatoned sound,
As Spring the Earth wakens in round.
Unwritten waiting for Nature's new pen,
As Summer starts singing again.

Full-chorded scoring, a concert of dun,
With Autumn's symphonics begun.
Reseeded lying, the chorus of wind,
Dead Winter's drear dirge to rescind.



AUTUMN CHORDS

© H. Lou Gibson, APSA

Monty and Morty

I wonder what that blue stuff is.
That's up there high and neat?
Sez Monty.
I'll bet its loads of blue ice cream,
With whipped cream spread to eat.
Sez Morty.

I wonder why the water's wet,
That makes us shake our tails?
Sez Monty.
I'll bet it's so the fish don't have
To live in trees like quails.
Sez Morty.

I wonder where the wind comes from,
That blows us off our toes?
Sez Monty.
I'll bet it's from a sleeping whale
That's snoring through his nose.
Sez Morty.

I wonder why the grass is green?
I'd like it to be red.
Sez Monty.
I'll bet because it isn't blue
Or yellow-brown instead.
Sez Morty.

I wonder where the sunset goes
When clouds are all blown out?
Sez Monty.
I'll bet it's where the echo hides
Just when we stop to shout.
Sez Morty.

I wonder why we look like ducks
Instead of other fowls?
Sez Monty.
I'll bet because our Mama's eggs
Were duck's eggs, not an owl's.
Sez Morty.



MONTY AND MORTY

© H. Lou Gibson, APSA

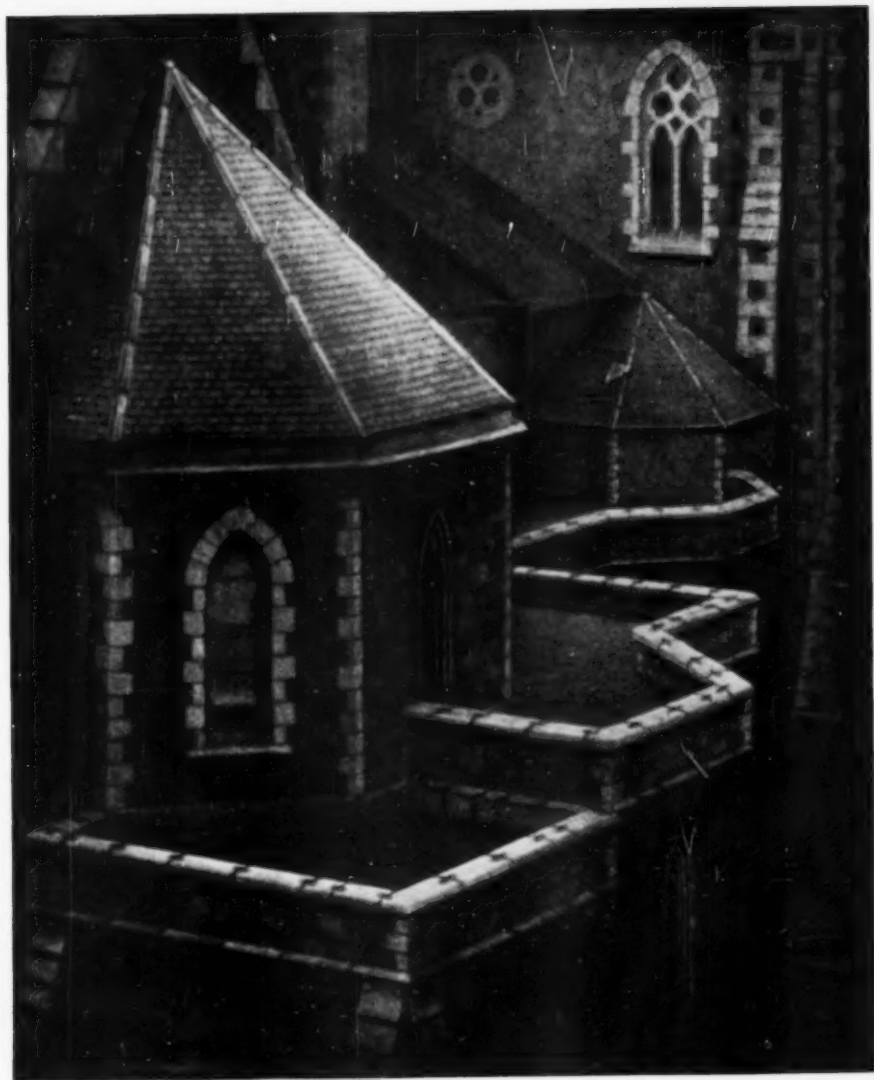
Sanctuary

Oh man-made tryst of mortised stone—
Worn outside by sun and snow
To blending mellow rock—
Do not lament the labor spent
To strip your mountain crown;
Nor bankers' scrip and widows' mite
That clove each crystal block;
For man and Maker ought not be alone.

Oh Sanctuary radiant—
Worn inside by joy and pain
To warmly glowing wood—
Do not demand from brain or hand,
That split your timbers true,
Return of leaves for wind to slight
Once fallen from their thrusting good;
For here you lamp our lowly gradient.

Oh sounding-board of bell and prayer—
Resonant with hope and plea
And droning lulls of loss—
Do not retreat a single beat,
Each vibrant of Mankind.
But wake us in our mortal fight
To what is writ upon your cross;
Lest Heaven cease our Earthly sound to share.

Oh monstrance sure of Reason's rôle—
Element of Order's law
That gives and thus is so—
Do not default, from Cosmic vault,
When overdrawn our grant.
Maintain in trust for us, despite
A billion ebbs to bleakness low,
Inheritance to subsidize our Soul.



SANCTUARY

© H. Lou Gibson, APSA

Directive

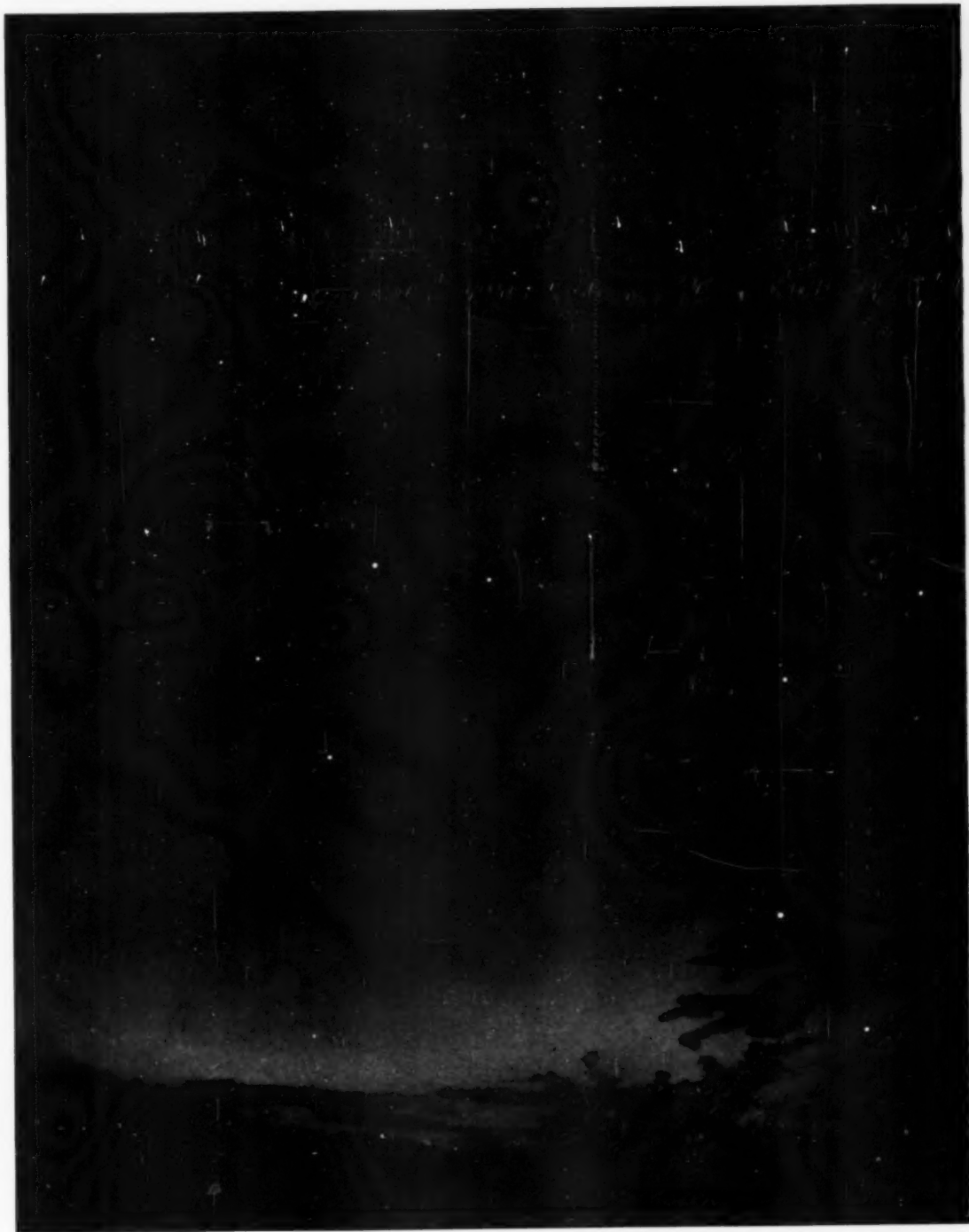
Have you seen the stars from a mountain spire
And cast away the City's cloak
To warm your Soul with their one purest fire,
Above the dirty dimming smoke?

Have you read the stars from a sea of sea,
Where all the roads are melted down,
Yet knowing not the suppliance of knee
Had Faith in Orders' beaconed crown?

Have you felt the stars from an Arctic dearth
And heard the needle ice reveal
Residual rings of all past sound on Earth
With yours so soon to swell the peal?

No?!

Then chill yourself in city murk
And watch your structure rot!
Or get out on black screeching sea
And feel your guts a clot!
Or gee and haw in swarming snow
And find what chance you've got!



DIRECTIVE

© H. Lou Gibson, APSA



OLD QUEBEC

John G. Mulder, AFSA

The Present Position of Amateur Photography†

BY JOHN G. MULDER, APSA *

AN AMATEUR photographer is one who pursues his hobby purely for the love of it. He is an enthusiastic fellow who would rather make pictures than eat or sleep; consequently he spends long hours, that seem to him only minutes, stalking his pictures, exposing his negatives, developing them, and making prints. It is a pleasure to represent here today those who have photography as a hobby.

Since the amateur has as his objective making pictures that please others as well as himself, and because he is not always successful in doing this, he is by nature restless and always anxious to improve his techniques. This desire for self improvement leads the amateur to be critical of methods, materials, and equipment available to him.

You see, this fellow is a staunch competitor. He is competing against himself for mastery of a hobby that is both a science and an art, and at the same time he is competing against all the others of his kind in his efforts to produce something artistic, fine, and lasting. Just think of the spirit that can develop—there are roughly 34 million amateurs in the U. S. alone.

Is it any wonder then that amateurs have been directly or indirectly responsible for many new developments in photography? Let us look back upon some of the con-

tributions they have made since the beginning of photography.

When in 1833 William Henry Fox Talbot, an Englishman traveling in Italy, found that his skill with pencil and paper was inadequate to sketch the scenery to his satisfaction, he dreamed of discovering some way of fixing by chemical means the image cast upon paper by the camera obscura.** So Talbot went home and experimented for about six years before he announced that he had accomplished his desire. And so, photography originated through the work of Talbot, a keen amateur.

At that time, exposure required hours, not fractions of seconds as is now the case, and so it was mandatory that cameras be set up solidly and that only stationary objects be photographed.

It is interesting to note that the first photographer had another difficulty not entirely uncommon these days—Talbot's wife was rather contemptuous of his photography and used to refer to his cameras as "Henry's mouse-traps." I presume that Mrs. Talbot could be said to be the first "darkroom widow."

Almost simultaneous with Talbot's work was that of Daguerre, a French amateur, who came up with Daguerrotype, a process in which a positive was produced directly on a polished silver plate.

Naturally, this new art aroused great enthusiasm throughout the world and before long, photography was a paying profession. As so often happens with a new idea, while some were using the invention for personal gain, others were vigorously exploring the field for improvements. Again it was an ardent amateur who provided the next impetus—Frederick Scott Archer in about 1850 invented the wet collodion process.

And if amateur photographers were enthusiastic before, now their enthusiasm knew no bounds. Just how enthusiastic they must have been, can be appreciated best by seeing the Eastman House display which depicts a wet plate photographer photographing the Genesee Gorge. In those days, the photographer was beset with endless difficulties which would certainly have discouraged anyone without deep interest. To make pictures out of doors, the photographer had to carry with him a tent to serve as a darkroom—his plates had to be coated with emulsion right on the spot because they had to be exposed and developed before they had a chance to dry.

There were no enlargers in those days—think of the



CASTE

M. L. Schaefer, Jr.

† From a talk given before a symposium on "The Science and Art of Photography," Rochester, N. Y., 9 November 1949, in connection with the opening of George Eastman House.

* President, PSA.

** Quoted directly from 1949 PSA Progress Medal Lecture, by J. Dudley Johnston.

technical difficulties involved in using and carrying a huge camera as large as 16 x 20" to get a 16 x 20" print. And, of course, the glass which he coated had to be that big too. Is it any wonder then, that pictures of wet plate photographers in action always show at least one apprentice?

Many other advances were necessary before photography reached the state of perfection indicated by the present day miniature camera. Among the greatest of these are the early contributions of George Eastman, especially his manufacture of dry, pliable, sensitized film. Please note that Mr. Eastman was an amateur when he started manufacturing and that his famous "You push the button and we do the rest" cameras were made specifically for amateur consumption. It is quite fitting that Eastman House has devoted a considerable amount of its space and program to the field of amateur photography.

Contributions of Amateurs

Amateurs have been directly responsible for numerous other contributions. Time will not permit their discussion, but let me list a few of the more important:

Development of 35mm photography by Oscar Barnack.
Development of the field of sensitometry by Hurter & Driffield.
Development of exposure meters.
Development of 8mm, 16mm, and 35mm Kodachrome by Mannes & Godowsky.

It is interesting to note that Professional Sheet Kodachrome did not reach the trade until well after 35mm and 16mm Kodachrome had met with success among the amateurs. Today, as in the past, the *amateurs* are the volume color film consumers—not the professionals.

Each new advance has been accompanied by enthusiastic response from the amateurs, but there have been other factors that have led to expansion of amateur photography. For example, the depression of the early 30's taught people the value of a hobby. They learned that here one could lose himself in creative enjoyment.

In recent years there has been great emphasis on hobbies for their therapeutic value, too, and here photography has come to its own.

A front-page article from the Rochester *Democrat and Chronicle* last Wednesday had as its headline: "What Makes Our Tired Businessmen Tired?" A Tired Businessmen's Clinic in Philadelphia treated some 2000 patients in 1948. It was found that about 80% of the patients needed the advice of a psychiatrist or the treatment of a physician. The most common ailments were stomach ulcers and high blood pressure and for these patients the most frequently prescribed treatment was "get yourself a hobby."

The renewed life of one of the most rabid amateurs I know is an example of the therapeutic value of a hobby. This friend came out of World War I with a burst lung. While he was traveling in the Orient later, bad health caught up with him. After a long delay he arrived back in the United States. His physician told him he had only

a few months to live. The prescription was "seek a dry climate, get out-of-doors and acquire a hobby."

My friend had never been a man for hobbies. He had been too busy. However, giving a little thought to the subject, he decided to take up photography.

He bought a camera and started. Soon he bought another, and another, and then a trailer to live in as he traveled and made pictures. Now, years later, he is still going strong and is spreading his enthusiasm all over the country as he lectures to amateurs, donating his services to the Photographic Society of America.

What are you going to do after you retire? Photography is the answer to that question for millions. Particularly with recent trends to provide old age pensions, there has been greater and greater emphasis on hobbies as means for enjoyment of retirement living. This is another factor in the recent popularization of photography.

For fear that the ladies will feel that photography is a man's hobby, let me tell you that women are taking an increasingly greater interest. Four of the top winners in the 1949 Newspaper Photographic Contest were women.

It is only natural that these enthusiasts should organize so as to find a common meeting place at which to exchange ideas. Here in America in 1933 the Photographic Society of America was established with about 100 members. Twelve years later, in 1945 there were 4400 members; today there are 8800. This is how PSA has grown in 15 years to become the largest organization of its kind in the world. The rate of growth is a direct measure of public response to photography as a hobby.

PSA is a democratic organization in which friendships are based on human values and not on social standing. Three weeks ago PSA had its Annual Convention in St. Louis. It was a pleasure to see friendships develop there.

The Future

We have considered briefly how amateur photography got its start and we have noted a few of its early milestones. By examples we have seen what it is doing today. We may well ask "Where does amateur photography go from here?"

This is my answer:

Photography is now about 100 years old. During this period of development, the amateurs have made valuable contributions which have led to great advancement of the art and science of photography. If we can inspire the amateur and give him freedom to operate, I am confident that he will continue to come up with inventions. In fact, by the law of averages we are about due now for another contribution, since the last major advance from the amateurs is nearly 15 years old—I refer to the Kodachrome development by Mannes and Godowsky.

Through its research facilities and displays, the George Eastman House can play an important part in arousing and encouraging the amateur to make new contributions. It is for this reason that I, as President of PSA, wish to reiterate publicly the Society's pledge of cooperation in this great venture.

TECHNICAL



TORPEDO DESIGNS TESTED AT MORRIS DAM, CALIFORNIA
Twenty-seven in a series of 28. Here, a three-inch steel ball, revolving in the water tank at a speed of 80 revolutions per minute, is stopped by an exposure made at 500,000th of a second.

OFFICIAL U.S. NAVY PHOTOGRAPH

Improving the Permanency of Color Film and Transparencies[†]

By E. S. MACKEY *

THIS PAPER is concerned with the permanency or perhaps more correctly, the lack of permanency of color film dyes. Many photographers have had the unpleasant experience of obtaining a colorful transparency that after hanging in a window for several months faded to a drab overall bluish or greenish appearance. Unfortunately, the ultra-violet components of sunlight destroy the dye brilliance of color photographs. The length of time to produce this type of fading varies. Several months exposure to north skylight or several weeks of direct sunlight usually produces a noticeable effect.

If you live near an industrial area where the fumes of the combustion products of gas, coal, etc. are present, transparencies may lose cyan or magenta density and become quite yellowish in color balance. This type of fading is called "gas" or "acid" fading and is a common problem to the textile industry. It is caused by the deteriorating effect of traces of acid gases in the air. This fading while quite noticeable in accelerated laboratory tests is happily less troublesome in practice and when fading occurs usually years of time are necessary to cause a detrimental effect.

Another type of fading that is commonly encountered is the dye degradation caused by ageing. This effect can be greatly accelerated by storing film in a hot, humid atmosphere such as an attic or wallet. The mechanism appears to be both a partial destruction of the dye images and an overall staining or browning of the lighter

portions of the picture. It is probable that the residual color developing agent plays a major part in this phenomena. An accelerated ageing test can be produced in a laboratory by suspending the transparency in a 100% humidity cell and placing the whole unit in a 100-120° F. oven.

Despite usual precautions taken in storing color photographs and prints, the dyes on the gelatin are often altered by the above conditions of light, heat, extreme humidity or atmospheres of industrial gases. Such gradual deterioration of color images is a reasonable objection that people have to making record pictures on color films. In fact, the lack of dye stability is recognized by manufacturers of color film as color film cartons bear a notice which guarantees the film against manufacturing and processing defects, but states that as all dyes may in time change, the film will not be warranted against change in colors.

However, much effort has been exerted and considerable improvement made in methods of stabilizing and protecting the dye images of color transparencies and color prints.

The most satisfactory approach to the acid and ageing discoloration was similar to that used in the textile industry. This involved the use of a special bath or rinse treatment to apply a chemical that increases the permanency of the dye images. Ansco has prepared a product under the trademark "Colorlast," designed for stabilizing color films and prints. Colorlast is a white powder which is readily soluble in water forming a water-white solution. Color prints or transparencies are treated by giving them a two or three minute final rinse in the Colorlast solution following processing. An alternate treatment consists of soaking dried color prints in water to soften the emulsion, rinsing the prints in the Colorlast solution and redrying.

Figure No. 1, which is a black-and-white reproduction of a color transparency, shows how the Colorlast rinsed section has been inhibited from fading caused by sulfur dioxide fumes. The untreated transparency lost considerable magenta and cyan image density when suspended over sulfur dioxide fumes. This improvement is also realized when color prints are treated with Colorlast rinse.

Figure No. 2, which is also a black-and-white reproduction of a color transparency, shows how treatment with the Colorlast rinse has given excellent stabilization to heat and humidity conditions. The untreated section lost



FIGURE 1. ACID FADING TEST. Left section was treated with Colorlast and suspended in acid fumes. Center section was the test control. Right section was not treated with Colorlast and was suspended in acid fumes.

[†] Presented at PSA Convention, 22 October 1949, St. Louis, Mo.

* Development Chemist, Ansco, Binghamton, N. Y.

yellow density and became brownish stained in the lighter portions when treated in a high humidity oven.

Light fading, however, is not prevented by the Colorlast treatments. The only effective method of retarding light fading is to prevent certain wavelengths from reaching the dyed image, that is, to cover the processed color material with an absorbing medium for ultra-violet, the fading component of sunlight. These are the wavelengths ranging from 320 to 400 mμ, the wavelengths between those transmitted by glass and the visible blue region of the spectrum. The requirements of such a medium, or actually a filter, are quite critical and are as follows:

1. The filter must be substantially colorless to the eye or it would change the color of the transparency.
2. The filter must absorb substantially all the ultra-violet between the wavelengths mentioned yet be stable itself to ultra-violet radiation.
3. The filter must be reasonably thin.

Special cellulose acetate sheeting has been manufactured at Ansco which does conform with the before-mentioned requirements. It is called U.V. Absorber 4000 foil.

The transmission curve of the ultra-violet absorbing sheeting is shown in Figure 3 as compared to the transmission curve of ordinary cellulose acetate film base.

Many other sheeting formulations were investigated but none possessed all the properties necessary for ultra-violet absorbing sheeting. Some of the formulations produced color in the filter, many discolored when exposed to ultra-violet; others showed insufficient ultra-violet absorption.

The protection of color film dyes by the ultra-violet absorbing acetate sheeting is illustrated in Figure 4, which is a black-and-white reproduction of a color transparency that was exposed to accelerated light fading by exposure to an arc light in a commercial instrument, known as a Fade-Ometer. The exposed area not covered by the U.V. Absorber 4000 foil lost considerable image density, particularly in the yellow layer.

The filter can be used very successfully to protect color prints or transparencies by mounting the color material in an envelope of the sheeting, or if a picture frame is used, mount the sheeting between the glass and the print. You might ask how 16mm and 35mm motion picture color film can be protected from light fading in this manner. Actually the problem is non-existent with these types of film for the exposure to the projection lamp is approximately 1/30 of a second each time it is projected, and at that rate the film will receive only two minutes exposure to light in 3600 projections. It would breakdown physically from projection handling before fading.

Ultra-violet absorbing lacquers can also be used to advantage in preventing light fading. However, this method of application seems to be less desirable as far as color film or color prints are concerned because considerable lacquer thickness is necessary to accomplish sufficient ultra-violet absorption. In addition a thick lacquer application is a ticklish operation because of the effect of many solvents on dyes and film base. Handling and drying conditions also have a major problem in relatively heavy lacquer applications.

Another improvement that has already been made in processing Printon prints and will shortly be introduced



FIGURE 2. AGEING TEST. Left section was treated with Colorlast and artificially aged. Center section was the test control. Right section was not treated with Colorlast and was artificially aged.

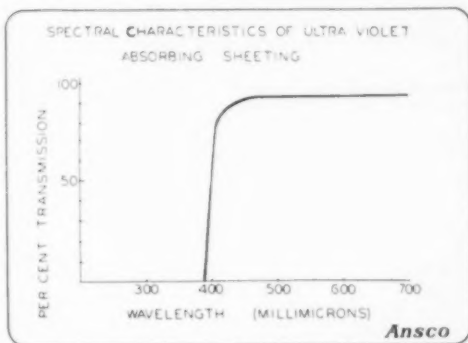


FIGURE 3. Transmission curve of U.V. Absorber 4000 foil.



FIGURE 4. ULTRA-VIOLET FADING TEST. Left section was covered by U.V. Absorber 4000 sheeting and exposed in the Fade-Ometer. Center section was the test control. Right section was not protected and was exposed in the Fade-Ometer.

for Ansco Color Film is the use of a more water soluble color developing agent (in preference to the previous compound Dicolamine). This new developing agent was originally adopted because it produces much less skin irritation than the former developing agent. However, it is more readily washed out of the film because of its higher water solubility and therefore leaves less residual

chemical to influence dye fading and staining with age, heat and humidity.

In summation, the dyes of color transparencies will remain quite brilliant and well preserved if the owner takes advantage of the protective treatment now being made available and exercises reasonable care in storage of his films.

Some Factors Effecting Sepia Tone*

By IRA B. CURRENT †

WHERE THE toning operation has been carried to completion, the color of the sepia tone obtained by toning photographic prints is influenced to a considerable extent by the nature of the development of the basic black-and-white prints. The variations in development may include formula modification, additions to the developer, degree of exhaustion, or developing time or temperature. Further modifications of the sepia tone result from variations in fixing time, type of fixer, type of drying of the finished print, etc.

To the advanced amateur or pictorialist these variations mean control that may be utilized to secure just some special shade of brown or sepia for a given single exhibition print, but to the top-flight portrait photographer, lack of complete control over these variables may mean trouble, as he endeavors to produce prints with a uniform tone quality that may be characterized by his professional name.

While developer variations are by no means the only factors entering into print tone color, they may account for a large part of the control or lack of control, depending upon your point of view, that may be exercised. Slight variations in toned print production may result from the differences existing between one batch of paper emulsion and another, or the age of the photographic paper, but these are generally negligible. Considerably greater variations result from type of fixer, fixing time, drying method or conditions, and even mounting method. The length of fixing time, especially if rather energetic fixing

baths are used, may account for some rather wide variations in tone. It is possible for all or part of these variables to accumulate so as to produce an unaccountable or not readily reproducible tone effect.

For this reason, the conditions under which toned prints are made should be standardized by the photographer, and kept as uniform as possible. At the same time, the fixing and washing should be thorough; although the former should not be overdone, and care should be taken to prevent contamination of any of the processing or washing baths. Once the conditions of a particular print laboratory have been standardized, the control over print tone becomes positive, and the photographer is master of this part of his medium.

To illustrate the effects of toning variations in the present discussion we will use for the most part Ansco Cykora paper and Ansco Direct Sepia and Flemish Toners. The same principles apply to many other brands of papers, and similar acting toners, although perhaps not to the same degree. As every photographer knows, one of the first factors effecting his sepia tone is his choice of paper type. Figures 1 and 2 illustrate the differences in black-and-white and sepia tones that exist between types of paper represented by Cykon, Indiatone, Cykora, and Brovira papers.

These spectrophotometric transmission curves indicate the relative proportions of lights of different wavelengths that are reflected from the toned areas chosen. In other words, this is a graphic presentation of the relative color of the tones at an arbitrarily chosen medium density (0.50) at wavelength 400 at which we selected to start

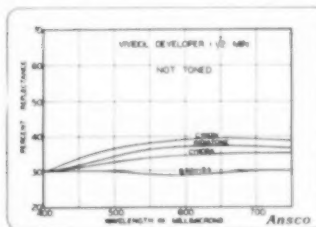


FIGURE 1

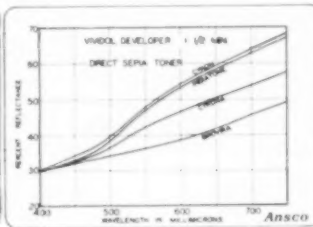


FIGURE 2

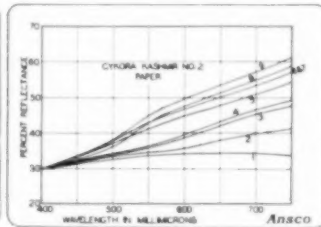


FIGURE 3

* Presented before PSA Convention, 21 October 1949, St. Louis, Mo.
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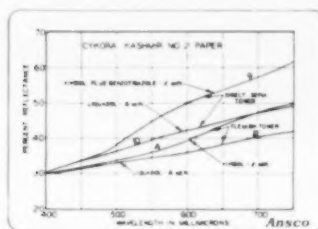


FIGURE 4

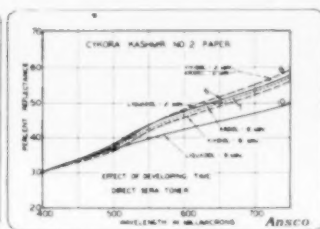


FIGURE 5

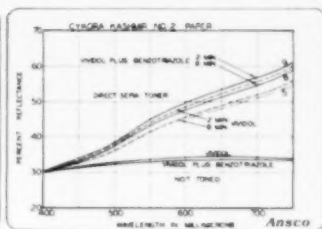


FIGURE 6

our curves. We have neglected in the present case the effects of higher and lower densities which also influence the color of the toned prints, but our curves will serve to show the relative toning effects. The higher the right hand part of the curves extend, the more reddish, or warmer, the tones they represent become. A curve straight across, with no ups or downs, would represent a practically neutral tone. The color of the tone is represented by the shape of the curve, and even relatively minor variations in the curve shape may be detected in the actual print by the experienced eye.

To obtain these curves, toned photographic print wedges were adjusted in the spectrophotometer until the toned deposit gave a reflectance reading of 30 per cent at a wavelength of 400 millimicrons.

Figure 3 illustrates some of the typical variations of Cykora paper tone that may be introduced during the developing operation, followed by toning in Ansco Direct Sepia Toner and Ansco Flemish Toner. Liquadol developer, while not recommended for use with paper, was used as an extreme of development in these examples.

In Figure 3, curve 1 represents an untuned Cykora print developed in Vividol Developer for 2 minutes; curve 2, an 8 minute Liquadol developed print toned in Ansco Flemish toner; curve 3, a 2 minute Liquadol developed print toned in Flemish toner; curve 4, a 2 minute Vividol developed print toned in Flemish toner; curve 5, a 4 minute Liquadol developed print toned in Ansco Direct Sepia toner; curve 6, a 2 minute Liquadol developed print toned in Direct Sepia Toner; curve 7, an 8 minute Ardol developed print toned in Direct Sepia Toner; curve 8, a 2 minute Vividol developed print toned in Direct Sepia Toner; and curve 9, a print developed in Vividol developer to which 1 gram per liter of benzotriazole had been added, and toned in Direct Sepia Toner.

In Figure 4, four curves from the previous series have been redrawn to illustrate the range of tones available by means of the extremes of these particular developments,

when toned in Flemish Toner and in Direct Sepia Toner.

Developing time has some effect on the final sepia tone; although developers similar to Ansco Ardol and Ansco Vividol have been formulated to keep this variation to a minimum. Figure 5 illustrates the variations in tone resulting from developing times of 2 minutes and 8 minutes in Ardol, Vividol, and Liquadol.

The tone of the black-and-white print prior to sepia toning is not always indicative of the warmth of tone of the resulting sepia tone. The addition of benzotriazole to the developer tends to make the black-and-white print a trifle "colder"; whereas the toned print is considerably warmer in character as indicated in Figure 6.

Next comes the effect of exhaustion of the developer through use. Contrary to the belief of many, the sepia tone does not always get warmer on exhaustion of the developer, but it often gets somewhat colder. The effects of exhaustion of Ardol developer are shown in Figure 7. This would indicate that for precise uniformity of tone, developing time should be slightly decreased as exhaustion of the developer proceeds. Such a modification would call for a slight additional increase in print exposure. However, while the variables of print exposure and developing time might conceivably be plotted against developer exhaustion, it would be better for the average photographer desiring strict uniformity to resort to more frequent renewal of his developer bath.

Fixing time should be enough to insure complete removal of the unexposed halides of the print, but prolonging the time beyond this will tend to produce warmer tones. The curves in Figure 8 indicate the effects of fixing time variations on the tones of the final print. The reason for the warm result with the extremely short time (1 min.) is that part of the unexposed halides have not been removed—fixing has not been completed—and they have been toned along with the developed metallic silver.

Washing before toning, while ordinarily not effecting

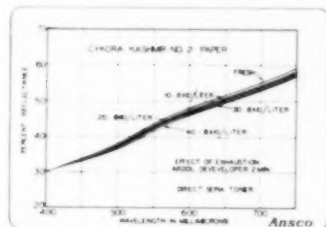


FIGURE 7

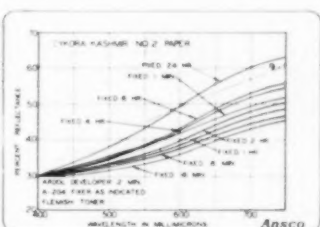


FIGURE 8

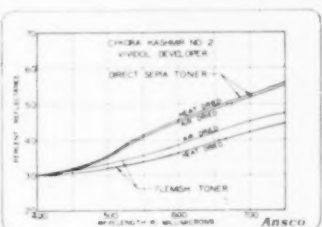


FIGURE 9

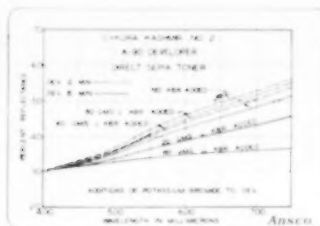


FIGURE 10

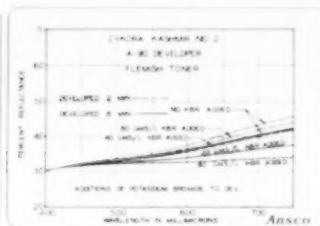


FIGURE 11

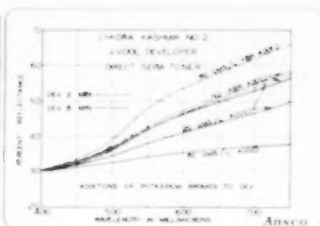


FIGURE 12

the sepia tones obtained with Direct Sepia Toner and Flemish toner to any appreciable degree, should be enough to remove most of the hypo, especially if it has been used considerably, because any halides (complexes) in the hypo might be toned and result in a light stain showing in the whites.

Drying does not usually appreciably effect Direct Sepia Tones except as the result of slightly increasing the gloss which in turn may effect the apparent tone. On the other hand, prints toned in Flemish toner, a selenium type, may be changed to some extent by heat drying. Figure 9 illustrates the change in tone that may be expected on heat drying a Flemish toned print, compared to the very slight change occurring on heat drying a Direct Sepia Toned print. This change in tone may not be serious if the resulting tone is considered to be satisfactory, and the drying procedure is made uniform from one time to the next. However, it may show up as an undesirable change when an air-dried print is not uniformly dry before dry-mounting with heat. The moist areas of the print will be changed to a greater degree than the dry areas, forming an obviously undesirable tone variation within a single print.

In many instances photographers may wish to turn variables in toning to their advantage to obtain a particular shade of brown. Several of these variables have already been pointed out. A further more useful means of obtaining colder tones with a given paper and toning method has been found to be through the addition of potassium bromide to the developer, along with an increase in the developing time. This effect is even more pronounced if a highly energetic developer formula is chosen as a basis, along with the increased developing time.

The developing time must be extended enough to overcome the restraining effect of the potassium bromide; otherwise the result may be to yield even warmer tones than would be obtained without the bromide addition. This makes the developing time an important variable

when using such a modified developer, but if it is extended far enough, reasonably reproducible toning results will be obtained.

Although the actual procedure to be employed in producing colder sepia tones by this method will have to be determined experimentally by any one wishing to make use of it, the following modified A-90 developer formula and time may serve as a starting point. A-90 formula is an energetic, high contrast film developer, but it may serve as a basis for producing cold sepia tones.

Hot water (125°F).....	750 cc
Metol.....	5 grams
Sodium sulfite.....	40 grams
Hydroquinone.....	6 grams
Sodium carbonate (monohydrated).....	40 grams
Potassium bromide.....	50 grams
Water to make.....	1 liter

Do not dilute for use, and develop prints for
5 minutes at 68°F.

The high concentration of potassium bromide in the developer apparently has the effect of converting part or all of the chloride of a chloro-bromide emulsion to bromide, in addition to a change in the size of the silver halide crystal due to aggregation of the small grains, or grain growth, (compared to an Ostwald ripening effect), to give a tone effect more nearly approaching that available from a bromide paper. To illustrate this conversion effect, examples of Indiatone and Cykora papers were bathed in A-90 developer without hydroquinone, metol, or usual bromide, but with varying amounts of bromide added. Following a wash for 4 minutes and drying, these treated examples were then analyzed for chloro-bromide ratios with the results shown in Table I.

Figure 10 shows the range of Direct Sepia tones available from Ansco Cykora paper when bromide is added to A-90 developer. As is indicated by the curves, short developing times with high bromide concentrations may

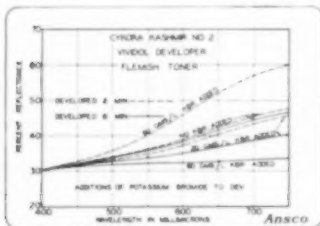


FIGURE 13

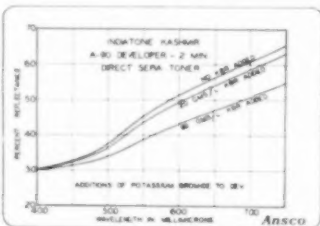


FIGURE 14

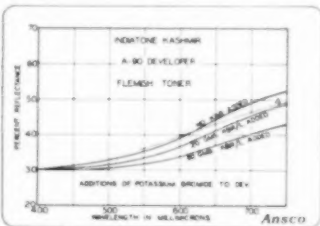


FIGURE 15

yield a very warm print, but increasing the developing time yields much colder tones, this effect being limited by the amount of fog that may be tolerated in the whites of the print.

Figure 11 indicates the nature of the colder Flemish tones obtained with the same developments. When carried to the extreme, high bromide in the developer plus long developing time, the Flemish toner may give a cold neutral tone to Ansco Cykora paper, not entirely unlike that sometimes obtained with a gold toner. Figures 12 and 13 illustrate the somewhat less cold toning effect resulting from the use of Vividol developer with bromide additions.

Ansco Indiatone lends itself to this type of treatment as is shown in Figures 14 and 15. The effect of the bromided developer on Indiatone is less pronounced, and 2-minute development in Vividol with bromide additions are not very effective; although the A-90 formula with potassium bromide added produces excellent colder tones when followed by Ansco Direct Sepia Toner or Flemish toner.

Once a procedure has been established that gives a particular desired sepia tone, all the steps in that procedure should be carefully standardized and made uniform from one time to the next, and frequent renewal of all processing solutions should be a part of the program.

TABLE I.

Paper	Amount of Bromide Added to Developer Without Reducing Agent	Time of Treatment	Relative Total Halides	% Bromide
Indiatone	Not treated	0	4.70	25.6
"	Washed Only	-	3.92	31.1
"	0	4 min.	3.13	35.0
"	20 g/L	4 min.	3.42	37.4
"	80 g/L	4 min.	3.37	38.6
"	80 g/L	8 min.	4.04	47.0
Cykora No. 2	Not treated	0	6.99	40.4
"	Washed Only	-	5.73	46.2
"	0	4 min.	4.95	50.7
"	20 g/L	4 min.	5.17	52.3
"	80 g/L	4 min.	5.38	52.4
"	80 g/L	8 min.	6.15	59.0

when it is desired to insure uniformity of tones from day to day.

On the other hand, the factors effecting the sepia tones may be used to advantage in securing almost any degree of "warmth" of tone, particularly additions of potassium bromide to an energetic developer with increased developing time which can provide Direct Sepia tones considerably colder than Flemish tones available from the same paper with "normal" developer and times.

Cellulose Acetate Deposited from Acetone Solution Containing Water

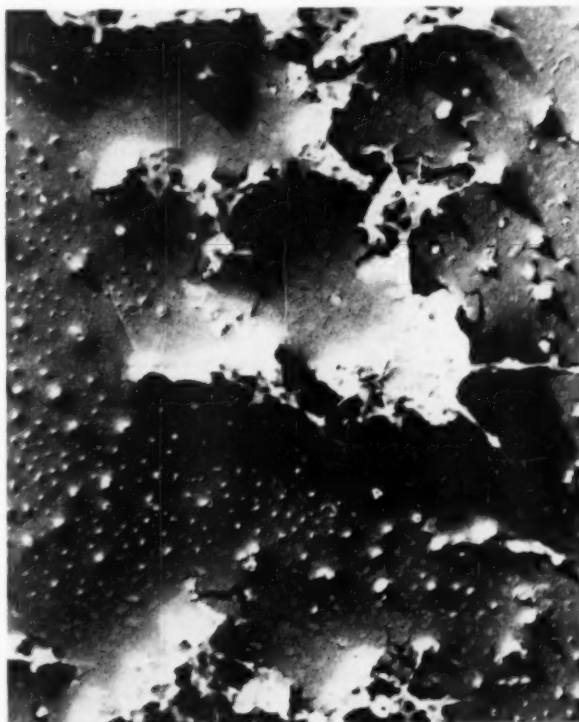
This electron micrograph is one of a series made to study the behavior of certain plasticizers on high polymers.

Total magnification 20,000X
Photographic enlargement 5.5X
Negative print
Aluminum-beryllium substrate
Gold platinum shadow

Prepared on Galactose glass surface

Made by Wilbur I. Kaye
Research Laboratories
Tennessee Eastman Corporation
Kingsport, Tennessee

From PSA 1949 Exhibition,
Technical Division



Dependence of Latensification upon the Degree of Development of a Photographic Material*

T. H. JAMES AND W. VANSELOW

Abstract

The effect of degree and nature of development upon the degree of latensification obtained with motion-picture positive film was studied. Samples were latensified with the following agents: auxiliary low-intensity light, mercury, gold, metabisulfite, perborate. They were developed in the Kodak developers, D-16, D-16 containing α -picolinium- β -phenylethyl bromide, D-19, D-19 containing α -picolinium- β -phenylethyl bromide, and a special surface developer, for the periods specified in the tables and illustrated in the figures. The quaternary salt did not increase the rate of solution of silver halide in the developer.

The experiments with D-16 served only to illustrate that the particular increase in speed obtained by latensification decreased with increasing time of development and that the percentage increase was usually less when the developer was made more active by the addition of the quaternary salt. The densities obtained on prolonged development with D-19, a more energetic developer than D-16, are near the maximum. Comparisons of the density and speed values for latensified and control films show that some latensification persists for all of the types of treatment employed. When D-19 containing the quaternary salt is used as developer, however, the degree of latensification decreases with increasing time of development and latensification has largely or completely disappeared at the point of maximum development. The highest emulsion speeds obtained with any developer tried were obtained with a special surface developer. With this, the effects of latensification are clearly in evidence in the early stages of development but disappear on prolonged development. When energetic developers are used, therefore, latensification does not increase the number of developable grains but simply increases the rate at which at least some of the grains develop.

THE EFFECTIVE EMULSION speed of many photographic materials can be increased by suitable treatment applied after exposure but before development. The effect of such treatment is in a sense to intensify the latent image, and the process has been termed "latensification."¹ Several formally distinct methods of latensification are known. Those known up to 1945 are treated in a survey by Sheppard, Vanselow, and Quirk.² Two other methods have been disclosed since—one which involves treatment of the film in aurous gold solution,³ and the other in perborate solution.⁴

In the previous work on latensification, little attention has been paid to the influence of the degree and nature of development upon the results obtained. Vanselow, Quirk, and Leermakers had observed, however, that the degree of latensification obtained with perborate treatment decreased with increasing time of development in Kodak developers, SD-21 and D-19. James, Vanselow, and

Quirk found that latensification obtained by treatment of the film in an aurous thiocyanate solution nearly disappeared on prolonged development in an active Elon-hydroquinone developer of composition similar to that of D-19. These results indicate that a kinetic development factor is introduced by the latensification. The purpose of the present work is to extend these observations to even longer development times and to several developers of different activity. Latensification was obtained by auxiliary low-intensity light exposures, treatment of the film in mercury vapor, in solutions of aurous thiocyanate, in solutions of potassium metabisulfite, and in solutions of sodium perborate.

Experimental Procedure

All experiments were made with a motion-picture positive film. Exposures were made using the Eastman IIB (time-scale) Sensitometer with the positive lamp, a color-temperature-correcting filter at 3,000° K., and a neutral density of 0.4 in the light-path.

Auxiliary low-intensity light exposures were made under the following conditions: A 6-watt, 115-volt, white frosted bulb was housed in a safelamp behind a 5- by 7-inch piece of flashed opal glass having an opening 11 cm. by 5.2 cm. The film was exposed at 142 cm. from the bulb or 128 cm. from the flashed opal glass. A neutral density of 2.0 was used to adjust the light-intensity. All auxiliary exposures were of 15 minutes' duration.

A large wooden container which was completely coated with paraffin on the inside was used for the mercury vapor treatment. Glass dishes on the bottom of the box contained liquid mercury. The air was stirred mechanically 1 minute out of every 15. The control film was stored in a similar container, with no mercury present. The duration of the mercury treatment was 2 days at 20° C. and 50 per cent relative humidity.

Strips of film were gold-latensified by bathing them for 10 minutes in a solution containing 0.04 gram of KAuCl_4 , 0.5 gram of KCNS , and 0.6 gram of KBr per liter. The corresponding control strips were bathed in a solution containing the same quantities of KCNS and KBr . The strips were dried after bathing.

Film samples were bisulfite-latensified by bathing them for 1 minute in a solution of 50 grams of $\text{K}_2\text{S}_2\text{O}_5$ per liter at pH 4.5. The strips were dried rapidly (within 20 min.) in air at room temperature. Strips bathed 1 minute in

* Communication No. 1265 from the Kodak Research Laboratories. Received August 5, 1949.

distilled water and dried as before were used as controls.

The solution used for the perborate latensification contained 0.2 gram of NaBO_3 per liter and 0.01 *M* KBr and was adjusted to pH 6. The film was bathed for 1 minute, then dried in the same manner as was used for the bisulfite latensification. The control strips were bathed in 0.01 *M* KBr solution and dried.

Development was carried out at 20° C., with mechanical agitation. The developers used were: D-16, D-16 plus 0.5 gram of α -picolinium- β -phenylethyl bromide per liter, D-19, D-19 plus 0.5 gram of the quaternary salt, and a developer recommended by Stevens⁵ for surface image. The latter developer had the composition:

Solution A: 2.2 g. Elon, 8.8 g. hydroquinone, 1 cc. sulfuric acid (concd.) and water to make 200 cc.

Solution B: 48 g. sodium carbonate monohydrate, 8 g. sodium sulfite (desic.), 100 g. potassium nitrate, 25 g. sodium sulfate, 4 g. potassium bromide, and water to make 800 cc.

The two solutions were adjusted to 20° C. and mixed just before use. The quaternary salt is a development accelerator.⁶

Experimental Results

The weakest developer used was D-16. Time-series runs were made with this developer alone, and with the addition of 0.5 gram of α -picolinium- β -phenylethyl bromide per liter. Preliminary tests showed that this amount of the quaternary salt gave about the optimum results. Sensitometric data for the D-16 run are given in Table I. Speed is expressed in terms of $30/E$, where E is the exposure required to yield a density of 0.2 above fog for the particular time of development. The speed increases with increasing time of development and approaches a maximum, although the maximum was not reached in the present experiments. The relative increase in speed produced by the latensification becomes smaller as the time of development is extended, but a substantial gain in speed from latensification exists even for the longest development times. Fog also is increased by latensification, but a gain in speed is obtained even if comparison is made at equal fog values rather than at equal development times. Except for the gold-latensification, gamma is decreased by the latensification. The increase in fog and decrease in gamma upon latensification were consistently obtained with all developers used.

Figure 1 illustrates the effect of latensification in another way. Fog-corrected densities are plotted against time of development for two different exposure values. The percentage fog correction to be applied was determined graphically. The graph used was a plot of density as the ordinate, and per cent correction as the abscissa. Two points were connected with a straight line. The first point corresponded to 100 per cent on the abscissa axis, and the fog value for the particular development on the ordinate axis. The second point corresponded to 0 per cent on the abscissa axis, and D_{max} (3.7 for the film used) on the ordinate axis. The per cent fog correction to be used is then read as the abscissa point corresponding to the ordinate value of the image density for the particular exposure. This method is only approximate but appears

Table I

Sensitometric Data for Development in D-16

Development		Auxiliary Low-Intensity Light				Untreated Control			
Developer	(Min.)	Speed	Gamma	Fog		Speed	Gamma	Fog	
D-16	2	47	1.08	0.09		24	1.26	0.00	
"	4	99	1.65	.10		45	1.78	.02	
"	8	122	1.88	.18		75	2.28	.10	
"	12	154	1.96	.40					
"	16	177	2.10	.64		104	2.42	.44	
		Mercury (Vapor)				Control			
D-16	2	52	1.05	0.02		29	1.20	0.02	
"	4	70	1.62	.04		47	1.74	.03	
"	8	88	1.98	.12		72	2.15	.12	
"	12	104	2.08	.36		84	2.28	.33	
"	16	99	2.10	.62		82	2.32	.60	
		Au-CNS				KCNS-KBr			
D-16	1	54	0.75	0.02					
"	2	95	1.54	.03		31	1.40	0.04	
"	4	117	2.08	.07		53	1.94	.06	
"	6	131	2.20	.10					
"	8	154	2.30	.16		79	2.35	.16	
"	12	177	2.32	.26		104	2.40	.30	
"	16					119	2.56	.40	
		Metabisulfite				Water			
D-16	2	65	1.25	0.11		27	1.28	0.07	
"	4	102	1.60	.13		47	1.92	.08	
"	8	128	2.00	.22		70	2.34	.15	
"	12	150	2.10	.37		88	2.34	.44	
"	16	158	2.22	.52		102	2.36	.64	
		Perborate				KBr Control			
D-16	2	38	1.18	0.01		26	1.28	0.04	
"	4	60	1.70	.04		48	1.88	.06	
"	8	82	2.08	.14		70	2.28	.16	
"	12	99	2.20	.29		90	2.32	.33	
"	16	114	2.24	.39		102	2.44	.42	

to be adequate for the present purposes. No strictly accurate method of fog correction has yet been devised.

The data in Fig. 1 are for bisulfite-latensified film and the corresponding water control. It is evident that the relative increase in density produced by the latensification is diminishing with increasing time of development. The

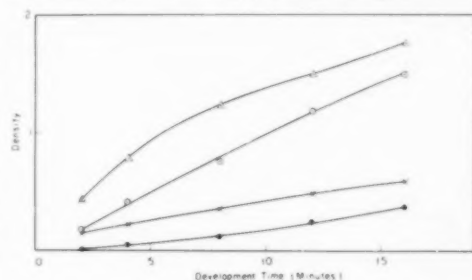


Fig. 1. Corrected density-development time curves, with D-16 Developer: —○—, water: log $E = 1.5$; —x—, bisulfite: log $E = 1.5$; —○—, water: log $E = 0.0$; —△—, bisulfite: log $E = 0.0$.

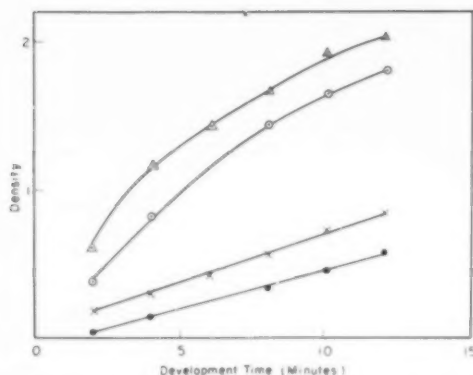


FIG. 2. Corrected density-development time curves, with D-16 Developer and 0.5 gram of α -picolinium- β -phenylethyl bromide per liter: —○—, water: log $E = 1.5$; —x—, bisulfite: log $E = 1.5$; —○—, water: log $E = 0.0$; —△—, bisulfite: log $E = 0.0$.

maximum density values for the particular exposures used (D_{∞}) have not been reached for the longest development time used. Figure 2 shows corresponding data obtained by development in D-16 to which the quaternary salt had been added. The sensitometric data obtained with this developer were similar in character to those obtained with the simple D-16 developer. The percentage increase in speed obtained by latensification was usually less when the developer contained the quaternary salt.

Data were obtained with the more energetic D-19 developer for varying times of development, and development was extended to or very near to the maximum. Typical density-development time curves are given in Fig. 3. The approximate maximum densities obtained with the various types of latensification and with the corresponding controls are listed in Table II for two exposure values. The values enclosed in parentheses are approximate, and may be slightly lower than the true maximum values. It will be seen that some latensification persists on prolonged development in every case except that of mercury.

A developer even more energetic than D-19 is obtained by adding α -picolinium- β -phenylethyl bromide to the solu-

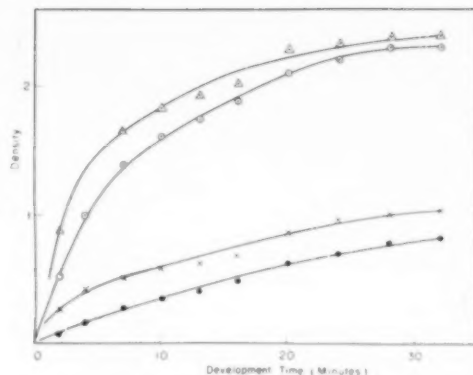


FIG. 3. Corrected density-development time curves, with D-19 Developer: —○—, water: log $E = 1.5$; —x—, bisulfite: log $E = 1.5$; —○—, water: log $E = 0.0$; —△—, bisulfite: log $E = 0.0$.

tion. Preliminary tests showed that 0.5 gram of this substance per liter of developer gave approximately optimum effect. Sensitometric data are given in Table III. Typical plots of fog-corrected density against time of development are given in Fig. 4. Maximum densities were clearly reached in every set of experiments with this developer.

The latensification for short times of development is clearly in evidence. The degree of latensification decreases with increasing time of development, however, and latensification has largely or completely disappeared at the point of maximum development. The curves for latensified and control film become substantially the same for the longer times of development. The disappearance of latensification is illustrated in Table IV. Here, the

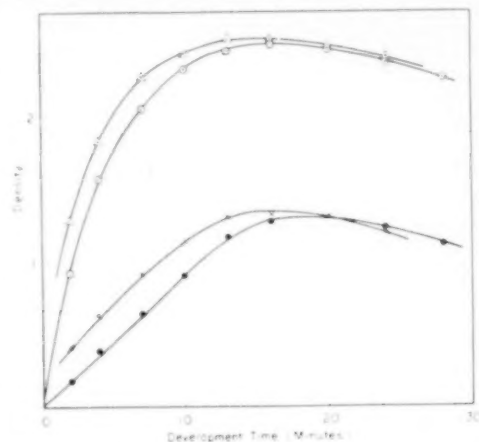


FIG. 4. Corrected density-development time curves, with D-19 Developer and 0.5 gram of α -picolinium- β -phenylethyl bromide per liter: —○—, water: log $E = 1.5$; —x—, bisulfite: log $E = 1.5$; —○—, water: log $E = 0.0$; —△—, bisulfite: log $E = 0.0$.

Table II

Fog-Corrected Maximum Densities for Development in D-19

Treatment	Max. D for Log E =	
	1.5	0
Note	0.60	2.0
Auxiliary light	(1.1)	(2.4)
Water	(0.83)	(2.3)
Bisulfite	(1.04)	(2.4)
KBr-KCNS	0.65	2.03
Ag-CNS	(0.83)	(2.28)
KBr	(0.88)	(2.58)
Perborate	(0.95)	(2.35)
Hg Control	(0.7)	2.0
Hg	0.68	1.93

Table III

Sensitometric Data for Development in D-19 +
a-Picolinium- β -phenylethyl bromide

Development	(Min.)	Auxiliary Low-Intensity Light				Untreated Control			
		Speed	Gamma	Fog		Speed	Gamma	Fog	
D-19 with (0.5 g./l.)	2	190	1.55	0.10		82	2.00	0.03	
	4	235	2.10	0.18		122	2.66	0.06	
a-picolinium- β -phenylethyl bromide	7	370	2.4	0.32		177	2.66	0.12	
	10	395	2.28	0.50		220	2.62	0.20	
	13	370	1.94	0.78		285	2.30	0.34	
	16	380	1.76	1.04		315	2.12	0.50	
	20	260	1.80	1.15		315	1.96	0.60	
	24	177	1.90	1.34		330	1.85	0.86	
	28	177	1.94	1.38		330	1.80	0.98	
	32	154	1.90	1.42		220	1.90	1.22	
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Development	(Min.)	Mercury (Vapor)				Control			
		Speed	Gamma	Fog		Speed	Gamma	Fog	
D-19 with (0.5 g./l.)	2	109	2.08	0.04		82	2.10	0.04	
	4	137	2.40	0.10		125	2.62	0.08	
a-picolinium- β -phenylethyl bromide	7	180	2.56	0.14		161	2.78	0.12	
	10	200	2.52	0.20		195	2.58	0.20	
	16	285	2.10	0.44		275	2.14	0.40	
	20	280	1.94	0.52		285	2.00	0.51	
	28	195	1.78	1.16		285	1.66	1.10	
	32	106	1.80	1.38		150	1.78	1.34	
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Development	(Min.)	Au-CNS				KCNS-KBr			
		Speed	Gamma	Fog		Speed	Gamma	Fog	
D-19 with (0.5 g./l.)	2	190	2.60	0.06		86	2.10	0.03	
	4	230	2.90	0.14		137	2.72	0.06	
a-picolinium- β -phenylethyl bromide	7	260	2.80	0.43		195	2.82	0.16	
	10	335	2.65	0.63		250	2.70	0.25	
	13	330	2.66	0.72		285	2.50	0.34	
	16	275	2.58	1.02		330	2.30	0.49	
	20	180	2.36	1.26		380	2.06	0.80	
	28	131	2.18	1.40		235	2.00	1.21	
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Development	(Min.)	Metabisulfite				Water			
		Speed	Gamma	Fog		Speed	Gamma	Fog	
D-19 with (0.5 g./l.)	2	161	1.74	0.08		88	2.02	0.03	
	4	200	2.40	0.12		131	2.72	0.06	
a-picolinium- β -phenylethyl bromide	7	270	2.66	0.18		177	2.85	0.12	
	10	335	2.40	0.30		220	2.76	0.20	
	13	445	2.22	0.54		310	2.30	0.36	
	16	360	2.00	0.75		345	2.22	0.53	
	20	385	1.90	0.94		385	1.98	0.68	
	24	215	1.84	1.25		330	1.92	0.98	
	28	134	1.80	1.49		165	1.74	1.35	
	32	109	2.00	1.54		114	1.84	1.48	
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Development	(Min.)	Perborate				KBr Control			
		Speed	Gamma	Fog		Speed	Gamma	Fog	
D-19 with (0.5 g./l.)	2	122	1.76	0.04		82	1.98	0.02	
	4	158	2.36	0.06		125	2.62	0.05	
a-picolinium- β -phenylethyl bromide	7	215	2.60	0.11		165	2.80	0.10	
	10	250	2.60	0.18		215	3.04	0.15	
	13	320	2.36	0.35		285	2.46	0.30	
	16	350	2.22	0.48		315	2.28	0.43	
	20	415	2.04	0.58		350	2.16	0.54	
	24	380	2.04	0.83		370	1.98	0.75	
	28	380	2.00	0.97		350	1.90	0.92	
	32	165	2.04	1.24		280	1.92	1.16	

maximum densities are recorded for two different exposure values. The densities obtained with water, bisulfite, bromide, and perborate treatment are identical within the limits of experimental error. The difference between the densities for untreated, auxiliary-light-latensified, KBr-

Table IV

Fog-Corrected Maximum Densities for Development in
D-19 + a-Picolinium- β -phenylethyl bromide

Treatment	Max. D for Log E =		Time of Max.
	1.5	0	
None	1.20	2.40	13-16
Auxiliary light	1.29	2.46	10-13
KBr-KCNS	1.26	2.54	13-16
Au-CNS	1.18	2.65	10
Water	1.28	2.48	16
Bisulfite	1.32	2.52	13-16
KBr	1.26	2.46	16-20
Perborate	1.29	2.46	16-20
Hg Control	1.15	2.30	16
Hg	0.84	2.10	13

KCNS-treated, and gold-latensified film are small and of doubtful significance. The densities for the mercury-latensified film are considerably smaller than those of the control.

A possible cause for the increase in emulsion speed and disappearance of latensification with increasing activity of the developer is that the rate of solution of silver halide was greater in the more energetic solutions than in D-16, and consequently more internal latent-image was utilized. The sulfite concentration of D-19 is considerably higher than that of D-16 (96 grams per liter as compared with 39.6 grams per liter). The quaternary salt might further increase the rate of solution. To test this possibility, total silver determinations (silver ions plus reduced silver) were made on unexposed, unfixed strips of film which had been bathed for various times in the different solutions. The results are given in Table V. The solutions used were D-16, D-19, D-19 containing the a-picolinium- β -phenylethyl bromide (designated in the table as D-19 + Q), a solution of the same composition as D-19 except that the reducing agents (hydroquinone

Table V

Loss of Total Silver by Film Bathed in Developer Solutions

Solution	Time in Solution (Min.)	Mg. of Ag per 100 Sq. Cm.	
D-16	0	51.0	
"	4	49.1	49.1
"	8	48.6	48.0
"	16	48.0	48.0
D-19	4	50.6	50.5
"	8	50.1	49.2
"	16	49.7	50.0
D-19 + Q	0	50.4	49.5
"	4	49.1	48.4
"	16	46.7	47.6
"	32	48.0	47.9
D-19 + R	4	50.0	49.3
"	16	48.8	49.1
"	32	49.4	49.4
D-19 + R + Q	4	49.7	49.5
"	16	47.1	47.6
"	32	43.2	42.3
D-19 + R + Q	4	50.2	50.2
"	16	46.1	
"	32	44.0	42.7

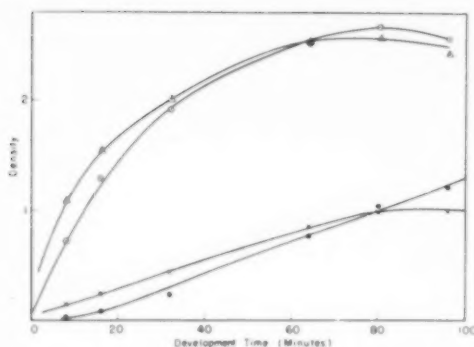


Fig. 5. Corrected density-development time curves, with the "surface" developer: —x—x—, water: log $E = 1.20$; —x—x—, bisulfite: log $E = 1.20$; —○—○—, water: log $E = 1.80$; —△—△—, bisulfite: log $E = 1.80$.

and Elon) were omitted (D-19 - R), and a similar solution to which the quaternary salt had been added (D-19 - R + Q). A different sample of film was used for the D-16 and the first D-19 determinations than for the subsequent ones, and the control strips showed a somewhat higher total silver content. The control for the second sample of film is listed under the second D-19 entry, and this control applies to all the subsequent figures.

On the basis of these results, it is clear that solvent action is not the cause of the increased emulsion speed and the disappearance of latensification. The film treated in the D-16 solution shows a larger loss of total silver than that treated in the D-19, so that the increase in bromide content more than offsets the effect of increased sulfite concentration. The quaternary salt does not increase the rate of solution of the silver halide. A comparison of the results for D-19 and D-19 - R, and for the corresponding solutions containing the quaternary salt, shows that more silver is lost from the film when the developing agents are absent. It is possible that adsorption of the developing agents by the silver halide decreases the rate of solution in the sulfite. A more likely explanation, however, is that the developing agents are reducing some of the

silver ions which are in solution within the emulsion but have not yet diffused out into the bulk solution. As silver nuclei are formed within the gelatin layer, reduction of silver ions at such nuclei becomes of ever-increasing importance, and possibly most of the silver halide which passes into solution at the longer times of immersion becomes physically developed out on the fog centers rather than passing out into the bulk solution.

As another check on the possible participation of internal latent-image in causing the disappearance of latensification on prolonged development, a series of experiments was carried out using the "surface" developer. This developer gave the highest emulsion speed on prolonged development of any tried. Typical plots of fog-corrected density against time of development are given in Fig. 5. Once more, the effects of latensification are clearly in evidence in the early stages of development, but disappear on prolonged development.

Table VI gives the maximum densities obtained with the surface developer. The maximum densities for the latensified film were lower than or equal to those for the controls, but never higher. The values for the gold-latensified film were considerably smaller than the values for the controls. The explanation of this is not clear. For some reason, the fog of the gold-treated film showed an unusually rapid increase with time of development, and the two effects are probably connected.

Blending magnification graininess measurements were made by Dr. G. C. Higgins, of these Laboratories. The essential data are plotted in Fig. 6. Film which had been latensified according to the agent listed in the table and then developed in D-19 containing 0.5 gram of α -picolinium- β -phenylethyl bromide per liter was compared with the corresponding controls. The duration of the development times was sufficient to produce the maximum value of the fog-corrected density. The graininess values reported are equal to $1,000 M$, where M is the blending magnification at a viewing distance of 2 meters and with a field luminance of 50 foot-lamberts, with no sample in place. Higgins concluded that for a given density there is essentially no difference in the graininess of any sample.

A series of experiments was made on the effect of the intensity of the exposing light upon the degree of latensification and its dependence upon the development time.

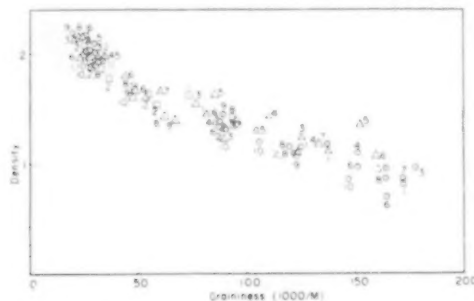


Fig. 6. Plot of density against graininess: 1. untreated; 2. auxiliary light; 3. Hg-control; 4. Hg; 5. KBr-KCNS; 6. Au-CNS; 7. water; 8. bisulfite; 9. KBr; 10. perborate. O, Δ , and \square refer to different times of development.

Table VI

Fog-Corrected Maximum Densities Obtained on Development in the Surface Developer

Treatment	Max. D for Log $E =$	
	1.8	1.2
None	1.2	2.75
Auxiliary light	1.0	2.6
KBr-KCNS	1.2	2.9
Au-CNS	0.45	2.4
Water	1.2	2.7
Bisulfite	1.0	2.6
KBr	1.5	2.9
Perborate	1.4	2.9
Hg Control	1.05	2.85
Hg	1.05	2.85

The developer used was D-19 with the addition of the α -picolinium- β -phenylethyl bromide. Development was carried out for 4 minutes and for the times which the previous experiments had shown to yield maximum densities for the various latensification procedures.

The untreated samples show very slight high-intensity reciprocity failure for 4 minutes' development. Latensification erases that failure (if it was real). There is no high-intensity failure for any of the samples at the longer development times (see Fig. 7). When development is carried to the point of maximum density, latensification has disappeared for all exposure intensities, with the possible exception of the perborate treatment of the high-intensity exposures. The curve for the perborate at 16 minutes' development still shows some latensification in the high-intensity region, but it is doubtful if the effect is real. The corresponding curve for 20 minutes' development lay above the curve of the control, thus showing a net loss in speed as a result of the perborate treatment.

Conclusions

Latensification of motion-picture positive film was obtained by treatment with auxiliary light, mercury vapor, aurous thiocyanate solution, bisulfite solution, and perborate solution, regardless of the developer used, provided the development was incomplete. Marked latensification was obtained for development times commonly used in practice. The latensification persisted for prolonged development in the weaker developing solutions. However, when energetic developers were used and development was carried to the point of maximum fog-corrected density, a residual latensification was not obtained with any of the agents employed.

The fact that latensification disappears on prolonged development in an energetic developer implies that the latensification procedure has not increased the number of developable grains. The latensification has simply increased the rate at which at least some of the grains develop. Consider, for example, the case of development for 4 minutes in D-19 containing the quaternary salt. (This would be considered a "normal" development time in practice.) The density for the untreated film for $\log E = 1.5$ is 0.39. The bisulfite-latensified film, on the other hand, gives a density of 0.64. Since density is nearly proportional to the number of developed grains under these particular conditions, 1.64 times as many grains have developed in the latensified film as in the untreated film within the 4 minutes. However, in this time, only 0.3 of the developable grains of the untreated film have actually developed, since the maximum density for this exposure and developer is 1.3. If development is prolonged to 20 minutes, all the developable grains have developed in the untreated and in the latensified films, and the number is the same for both.

It is conceivable that the developer itself is acting as a latensifier for the very small centers. Such a process would be conceptually different from development itself only if the mechanism were distinct from the main reaction of development. Suggestions have been made that development occurs in two stages. Berg,⁷ for example, has suggested that the initial stage of development takes place according to a mechanism identical with that of

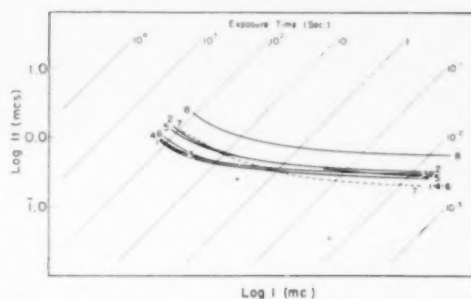


FIG. 7:
Reciprocity-Failure Curves for Development in D-19 with α -Picolinium- β -phenylethyl bromide

Curve	Treatment	Development Time
1	Untreated	16 minutes
2	Auxiliary light	10 "
3	Hg Control	13 "
4	Hg	13 "
5	Au	10 "
6	Bisulfite	13 "
7	Perborate	16 "
8	Perborate	20 "

latent-image formation except that the electrons are derived from the developer. The second and main stage of development proceeds according to another mechanism. However, there is no experimental evidence that the early stages of development proceed by a different mechanism from the later, or that the action of the developer upon a very small nucleus is different in mechanism from the action on a large nucleus. For the present, therefore, the suggestion that the developing agent can act to latensify a latent subimage is purely speculative and not susceptible to test by the evidence available at this time.

The result of latensification of exposed film is essentially an increase in the rate at which some of the latent-image specks initiate development. Such an increase could conceivably be brought about in several ways. The size of the latent-image speck could be increased (as very probably is the case for auxiliary low-intensity light latensification), and this should increase the rate of development in the early stages. The substance of the latent image could be changed to a more active one (as, for example, by replacing silver by gold). Or, the environment of the speck might be changed in such a way that the speck became more readily accessible to the developer. No distinction can be made between these various mechanisms on the basis of the present results, since each would lead to the same result on maximum development.

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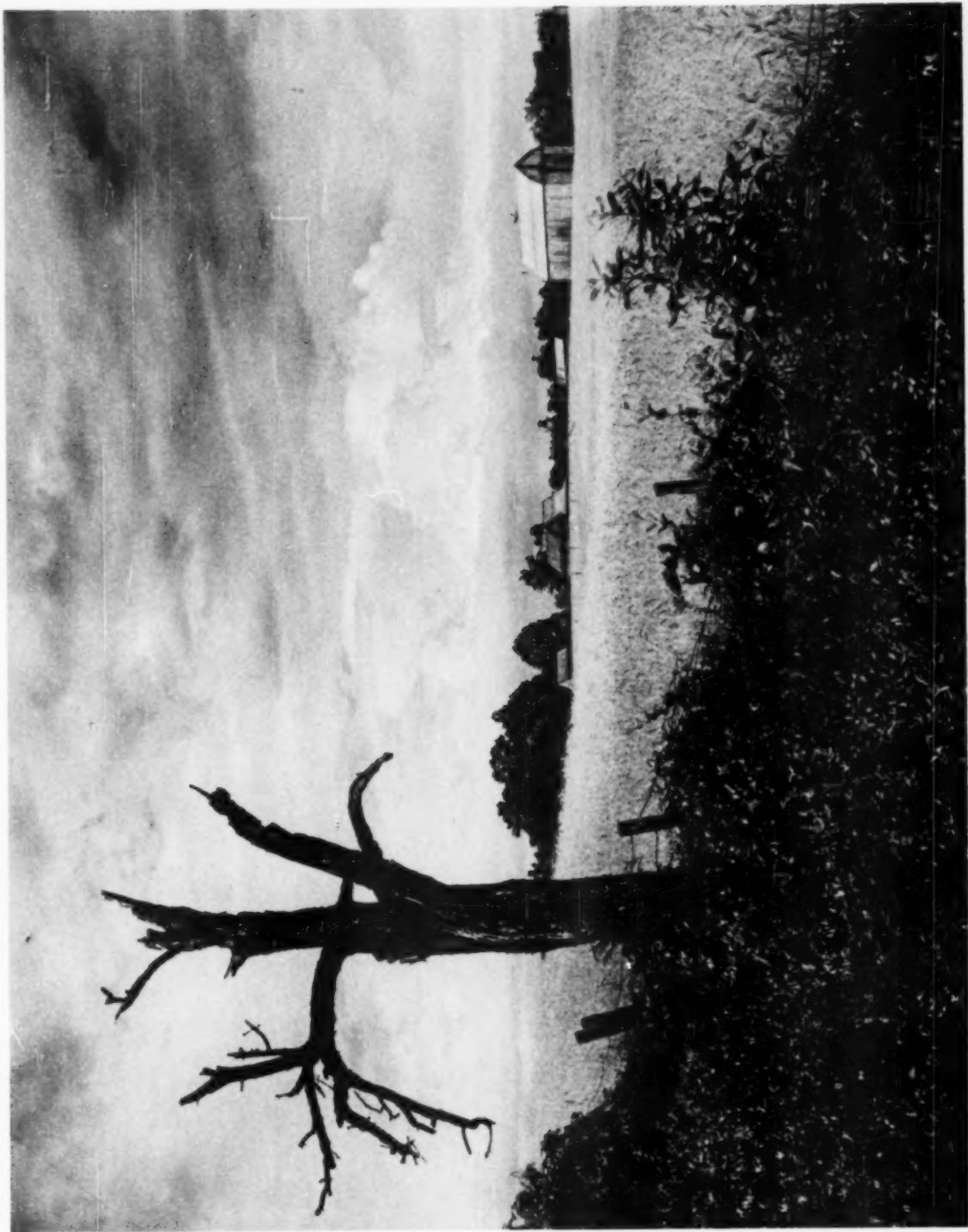
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COLOR



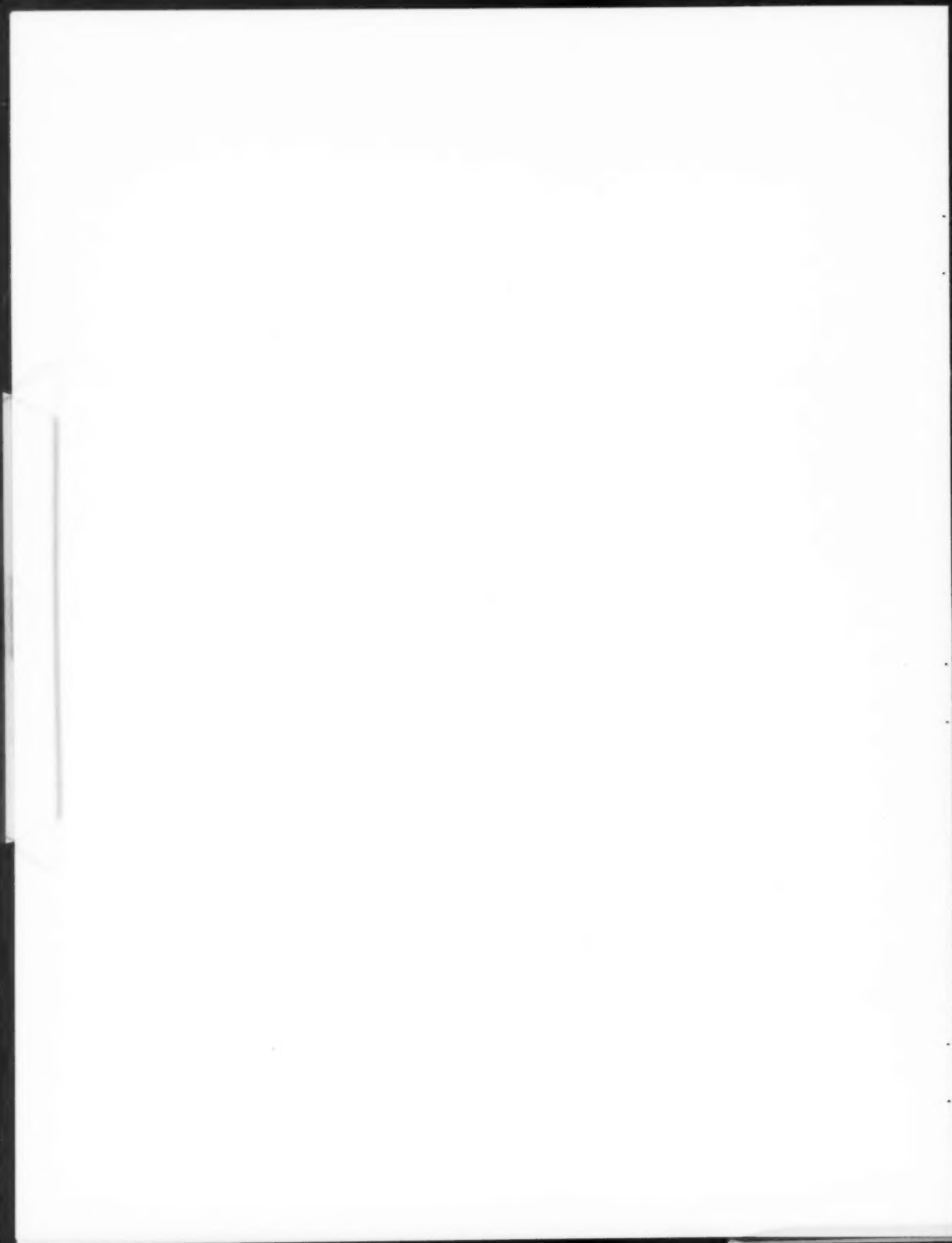
THE RED DRESS

Joe E. Kennedy



SPRING WHEAT FIELD

A AUBREY BODINE, EPSA



Try a Travelogue of the Seasons

BY GEORGE F. JOHNSON

SOME color slide photographers are fortunate in that they can travel occasionally to foreign countries. When they return, their slides just naturally fit into a fascinating travelogue lecture that thrills the home folks.

Other color workers are less fortunate. Their week-to-week photographic efforts must be confined to their home town, their home community, or at best, their home state. Knowing that photographic opportunity is not bounded by geographic limitations, these slide enthusiasts often do finer work than some of their widely-traveled friends. However, they are handicapped because their slides do not seem to fit into a logical travelogue-type of illustrated lecture, and they, being modest in mind as well as in means, refrain from showing their slides to the home-town folks, because it is "just a collection of slides."

This is unfortunate. Taking color slides, in the writer's opinion, is only about half the pleasure and value that a photographer and his community should get from this local pictorial effort.

The challenge is this: Can a color photographer through close observation, originality, and resourcefulness produce a collection of slides within a reasonable radius of home which, when skillfully organized and projected, will create as much interest in home and community meetings as a foreign travelogue?

What to photograph, how to organize the slides into an interesting lecture, and how to project the slides for maximum audience appeal are all a part of the problem. Every opportunity must be fully exploited because the simple appeal of the commonplace must be built up to match the thrill of a foreign landscape with its unique customs and dress.

After a five-year experience, the writer believes many photographers have a most pleasing assignment ahead in producing and perfecting a color slide lecture close to home base.

Seasons on Parade

First of all, some form of a natural sequence must be evolved. Photographers in regions of marked seasonal changes, such as the writer, will find the season-by-season story with a morning and evening beginning and ending very effective. A sunrise faded in (explained later) is a good beginning and a sunset faded out is an effective close. A four-slide sequence showing an inviting landscape in spring, summer, fall, and winter, makes a logical introduction for a travelogue of the seasons.

THE SAME SCENE — SPRING, SUMMER, FALL, WINTER





Autumn Harvest makes a colorful slide.

Follow with the coming-to-life of the spring fields and fence rows. Select scenes that symbolize spring such as a boy fishing in a creek or pond, a bird nest with its blue eggs, farmers plowing fields, spring woodland flowers, and the Easter parade on Main Street.

For a transition from spring to summer, try a tree with overhanging branch framing a scene like a farm lane and red barn. Record this view just as the small green leaves are unfolding, and again as the leaves are fully grown with their luxuriant green. By showing first the spring scene then fading it out and with a quick switch of slides fading in the same scene in summer, you make the transition and are ready for mid-summer "shots" of wild flowers, grain harvest in the golden fields, night scenes of a July 4th celebration, the late summer fruit, and the longer summer vacation ventures. Try to foresee the coming of autumn colors and repeat the spring to summer idea in a summer to fall landscape change.

In many sections of North America, fall is the color photographer's dream. The important task here is to try for variety with distant landscapes mixed with colorful autumn berries and leaves taken quite close. Roadway views with young folks hiking into the country are good, and don't miss the autumn harvest scenes in the cornfield and orchards. The suggestions of Thanksgiving must not be overlooked if a turkey flock is encountered. A well composed close-up of a few heads of the gobblers is something.

If you can catch an early snow sprinkled on autumn colored leaves, you have the transition to winter. Then a great array of picture possibilities unfold in the icicles hanging from the eaves, the snow-rutted country farm lanes and city alleys, the Christmas outdoor lighted decorations, the corn shocks covered with snow, the skating on a nearby pond or lake, a fireplace scene in the home, and then the colorful finale in the sunset. Getting the skyline of the home town silhouetted in the sunset will make it tops.

To be most effective the local travelogue must avoid personal pictures with one and the same person providing a center of interest in many views. It must consist of a great variety of general, intermediate, and close-up slides. Flower gardens, children and their pets, flock and

herds on nearby farms, or a tamed wild animal—all provide highlights for a local color slide lecture.

Avoid views of places of common sight-seeing interest. They are usually overworked photographically. Strive for unique angles and pleasing compositions of the commonplace things. Don't overlook the opportunities afforded by fogs, snow storms, and heavy downpours of rain for something different in city and country scenes. They will all fit well into your color slide parade of the seasons.

Showmanship Helps

And last, but certainly not least, work out some showmanship effects by projector manipulation. The fade-ins and fade-outs mentioned earlier can be easily accomplished by squeezing on and off the light as it comes from the projection lens using the thumb and fingers of the left hand. Immediately in front of the lens, place your hand with thumb and first index finger close to rim of the lens in a position as though you were going to grasp the projected light like a broomstick. Then slowly bend and close your fingers inside your thumb. Watch the picture fade out and disappear from the screen. Keep your folded hand in front of the lens, then quickly switch the slide changer to another view, and reverse the operation by unfolding your clenched fist slowly. In fading out a sunset, the projector light is turned off just as the fade-out is completed. This technique can be worked effectively in going from a general to a close-up such as a view of peaches on branch of a tree, flowers in a garden, in the change from one season to another of the same landscape, and especially on sunrises and sunsets.

Once your set of slides has been organized and the showmanship worked out, there is the commentary to consider. In general, the pictures should speak for themselves, except for interesting sidelights and details not readily visible on the screen. The comments spoken clearly and loud enough for all to hear should support and reinforce the appeal of the pictures. Timing of remarks is very important. In some cases such as general landscapes, a few remarks made just before the view comes on the screen may be most effective. In other cases, such as close-ups of well-known flowers, it may be best to give a moment for the audience to react spontaneously to the picture and then add a few appropriate words. Avoid comments during the periods when the audience is expressing its reaction audibly (favorably we hope.) Share gracefully with your audience any opportunity it may want to express itself.

The possibility of providing a soft music background for the lecture is also worth considering, although the writer has not ventured into this field yet.

While color slides are the medium mentioned for this type of illustrated lecture, either 8mm or 16mm motion pictures in color can be worked out along the same seasonal sequence, using perhaps more animals and fewer static landscapes.

A home community or home state travelogue built around the seasons is an interesting assignment for any enthusiastic color photographer. It can be started anytime and it can be turned into a morale builder for the good old home town.

Organizing and Exhibiting Transparencies

By E. E. WYLAND

Full color transparencies, particularly those which can be mounted in the 2" x 2" slides, have achieved remarkable popularity in the past few years. The amateur photographer has welcomed this means of recording nature in full color and has rapidly collected a library of slides with which to entertain small groups of friends in the homes or larger groups in clubs, schools, etc.

Due to the rapid growth of these libraries, many have been collected without the benefit of any detailed plans for their proper organization and care or for their protection to the best possible advantage. Innumerable transparencies with beautiful color rendition and pleasing composition are, through poor presentation, losing the glamour and audience acclaim to which they are reasonably entitled. The following suggestions are offered with the hope that they will lead to a greater enjoyment of this wonderful hobby and further enhance the presentation of transparencies to our friends and the public.

Selecting The Mount

The 35mm or Bantam size transparencies can be mounted into 2" x 2" slides by either of two main methods at the discretion of the individual:

1. The transparency may be placed in a mask and then bound between two pieces of cover glass, either by means of tape, metal or other devices.

2. The transparency may also be mounted in a card mount known as "Kodak Ready-mount" or "Anso Ready-mount". When this is performed as a part of the service rendered by the processing laboratory, the slide is returned ready for showing.

The determination as to which of the above methods to adopt is a matter of individual preference. However, once a preference is made, it is generally desirable to follow that method in the interest of ease of indexing and projecting. Some of the considerations which may aid in making the initial selection of mounting methods follow:

I. Advantages and disadvantages of glass mounted slides.

A. Advantages

1. Cover glass offers a greater protection to the transparency. Fingerprints and dust may be easily removed. Where more than one person handles the slides, cover glass is insurance against damage.
2. Slides mounted in glass hold focus regardless of the heat generated in some projectors and consequently can be displayed on the screen for longer periods of time.
3. The use of cover glass necessitates the mounting of the slides by the individual. This processing offers an opportunity in masking or in cropping the picture in a limited way to give advantages in composition.

Bantam size transparencies can frequently be masked down sufficiently by use of standard 35mm masks. Single frame masks offer advantages for both Bantam and 35mm transparencies where greater cropping is indicated.

B. Disadvantages

1. Slides mounted in glass cannot be used in the Kodaslide changer and consequently must be handled individually, requiring more time in presentation. There are, however, other changers on the market which will take glass mounted slides.
2. The use of cover glass, masks and binding devices increases the cost of the slide transparencies.
3. Transparencies mounted in glass increase the weight and require more filing space. Where a volume of slides is involved this may be a factor.
4. In general, labeling and titling are more difficult on glass mounted slides unless certain types of patented mounts are used which have appropriate space for this purpose. Where standard cover glass is used labels can be made on small strips of paper and inserted under the cover glass thus avoiding the problem of pasting it on the outside.

II. Advantages and disadvantages of Ready-mounts.

A. Advantages

1. A Kodaslide changer may be used which permits as many as 50 slides to be placed in the magazine at one time and moved through the projector, if desired, with a long flexible cable, thus simplifying and expediting the projection as well as avoiding handling each slide separately.
2. The transparencies are returned from the processor ready for exhibition, thus saving time and expense as well as eliminating unnecessary handling of the bare film.
3. The ready-mounts permit easy titling and identification with either pencil or pen.
4. They are lighter than glass mountings and take up much less file space.

B. Disadvantages

1. Ready-mounts serve only as a mount and offer no real protection to the face of the transparency; consequently, careless handling may result in fingerprints and damage. Where slides are subject to frequent or indiscriminate handling, cover glass offers the greater protection.
2. Ready-mounts, unless exhibited in a projector which protects the transparency from heat, are inclined to change focus; thus if they are in focus when first inserted in the projector, it may require refocusing after the slide becomes heated and the film base expands.

From the above it is evident that a decision as to the type of mount to be used will depend largely upon the conditions in each individual case. Either method will be reasonably satisfactory, subject to the limitations listed above.

Titling and Identifying Slides

Titling and identifying slides for projection are the most important operations in maintaining any well organized slide library. Unfortunately, they are too frequently overlooked and are perhaps the cause of more amateurish presentations than any other factor.

I am sure we have all attended an exhibition of transparencies where the projectionist was constantly getting the picture in the projector upside down—or squinting at it in the shaft of projector light, trying to figure out which way to insert the slide. This definitely tags the presentation as poorly planned, unorganized and strictly amateurish.

As soon as the transparency is returned from the processor and mounted, it should be given the following treatment if it is to be retained and screened:

1. Place an identification tab to indicate the position of the slide in the projector.
2. Place the title or a description which will identify the transparency as to location, subject matter, etc.
3. It is generally desirable to have the date that the transparency was exposed. It may be sufficient only to have the month and the year for reference purposes.
4. Post exposure data in those cases where it may be of future value.
5. The name of the owner should be plainly stamped or written on the slide for protection and identification.
6. Identify with a code or sequence number if you use this method in your filing.

The identification tab should always be placed in the lower left-hand corner of the slide. Careful attention to the placing of this identification tab will avoid much of the delay and confusion which now accompanies many slide showings.

The identification tab can be any distinctive marking. I have found that the yellow Dennison No. 12 dot shows up very well and also gives sufficient space for most code or sequence numbers.

The placing of the other information on the slide will depend upon the major method of use. If the slide is generally shown through a projector, the information should be readable to the projectionist, with the tab in the upper right-hand corner. If, however, the slide is seldom shown by this method, but as a general practice is viewed in a direct viewer where the slide is inserted right side up, you may wish to place the information to be readable when the tab is in the lower left-hand corner.

Grouping and Indexing Slides

For proper presentation, slides should be organized into groups in accordance with subject matter and placed in proper sequence. Pictures, like the written word, tell a story or a part of a story. A group of pictures, like the chapters of a book, when properly combined can be made to tell a complete story. Thus the pleasure to both our friends and ourselves will be enhanced by organizing our color transparencies into sequences which serve to bring to life again a complete trip, season, or cycle of flowers in our gardens.

In preparing slide groups and sequences, they need not be in the order in which they were taken. They should be arranged in the most logical sequence from the audience's standpoint. As an example, you may decide to group cer-

tain of your slides upon a seasonal basis. Under such circumstances the logical sequence might be to start with the winter scenes and then follow in order with spring, summer and autumn, regardless of the order in which the pictures were taken. Slide groups and sequences might involve such typical combinations as covered by the following titles.

Harvest Time
Yellowstone National Park
Colorado Mountain Flowers
A Day at the Zoo

Where transparencies are shown to clubs and other organizations, it is always well to segregate family pictures into a separate group or family album. Such pictures may then be retained for the more personal and family gatherings, since this type of picture is generally of little interest to those outside the immediate family.

In organizing our slides into groups, it is well to remove those scenes which seem to be duplicates or which have no relation to the subject involved. It is also desirable to remove those transparencies of poor quality, composition and color rendition which would tend to detract from the group as a whole. The slides which are removed can be placed in a separate file and used for your private showings or retained for possible combination into other slide groups should their subject matter and quality permit.

In some cases it may be found advantageous to prepare a slide which serves as a title for the transparencies which follow. Such a title slide may be prepared in the same manner as for moving pictures; i.e., by placing letters over a suitable picture, texture, or colored background and photographing it in the usual way. Unique titles can also be made by the familiar "table top" technique. Colored maps, or portions of them will often assist in establishing the locale for a picture group; these may be easily copied by the use of supplemental lenses. When pictures are taken with a certain sequence in mind they can occasionally be composed to include a sign, etc., which will name the locale or otherwise serve as a title.

After a group or sequence has been established, the individual slides may be numbered or coded. This assists in keeping the slides in proper order and quickly replacing those which occasionally are removed for inspection. The sequence number can usually be placed in the designation dot. It is well to use a pencil for this purpose so that changes can be made easily as required.

It occasionally happens that an exhibitor is called upon to show slides on a horizontal screen where it is not practical to project vertical transparencies. To facilitate quick segregation of such vertical slides from a group, a distinctive marker or indicator may be used. Such markers or indicators should be visible when the slide is in the file. If ready-mounts are used, a red pencil mark may be placed along the top edge to provide easy identification of the vertical slide.

It is also helpful to be able to quickly segregate those transparencies which you consider the most outstanding. This is particularly helpful in making selections for contest submission. These slides may be readily designated by some distinctive marker. If cover glass with conventional binding tape is utilized, they may be identified by

employing a different color binding from that normally used. If ready-mounts are used, a red Dennison dot or star may be folded over the upper edge.

After the slides have been organized into groups and sequences, a handy index may be prepared similar to the following:

Slide Group	Number of Slides		
	In Group	Vertical	Outstanding
Yellowstone National Park	33	5	3
Summer Flowers	15	4	2

Slide Files

Numerous slide files are available on the market for 2" x 2" transparencies. In addition to those available at the photographic dealers, simple slide files may be made easily and inexpensively in the home work shop. Most files available through photographic supply houses have a compartment for each individual slide. This is satisfactory for glass mounted slides but is not practical where ready-mounts are inserted in groups in the Kodaslide changer. In the latter case, it is better to have the slides filed in groups of a maximum of 50. This method of filing conserves space and expedites showings. Where suitable files cannot be obtained to permit this latter grouping, the type equipped with individual compartments can frequently be modified by removing intermediate separator strips.

When slides are exhibited by means of a projector, the transparencies should be placed in the file with the designation dot up. This will assist the projectionist and avoid confusion.

Presentation and Projection

When transparencies are projected for the pleasure of others, the success of the showing is enhanced by a well organized and planned presentation. Beautiful transparencies deserve all the showmanship that can be given them and the audience is entitled to this consideration. Here are some of the preparations that will pay dividends in projection satisfaction and pleasure:

1. Inspect the transparencies to be exhibited to insure that they are in the right order and are filed with the designation dot at the top to facilitate projection.
2. The transparencies to be presented should be thoroughly cleaned to remove any finger marks or dirt. A camel hair brush should be used. If finger marks occur on a cardboard-mounted transparency, the marks may frequently be removed by careful use of a lintless cloth dampened with the film cleaner recommended by your photographic dealer.
3. The projector lens should be cleaned before every showing and at reasonably frequent intervals the entire projector should be thoroughly cleaned and inspected. It is always good insurance to carry a spare projector lamp and an extension cord.
4. Wherever possible set up the projector well in advance of the showing and locate the screen to the best advantage for the seating arrangement involved. Focus the projector and arrange for control of room lights and window shades in order to be ready to start the presentation without delay.
5. It is preferable to use your own projector or one with which you are thoroughly familiar. Transparencies are naturally exposed to give the best results with your own projector

and screen, and at your normal projection distances. Transparencies can only be presented with consistent results if the following four factors remain constant:

- a. Illumination efficiency of projector.
- b. Distance of projector from screen.
- c. Use of the same type of screen.
- d. Same relative darkness of projection room.

Different types of projectors have different illumination efficiencies and so under otherwise similar conditions projected transparencies will deviate in color value. Accordingly, it is better to use a projector of characteristics with which you are thoroughly familiar.

6. If transparencies are to be projected on the same program with 8 or 16mm moving pictures, it is preferable to have the slides shown last because even the best 8 or 16mm moving pictures suffer by contrast with good 35mm or Bantam size transparencies. This is due to the additional "blow up" necessary for the motion pictures and to the lesser definition caused by the motion.
7. Where possible, select the type of screen in accordance with the room shape and seating arrangement involved. The glass beaded type screen has a high reflection efficiency but a narrow angle; hence, it is best suited for long narrow rooms where the audience can be seated well back from the screen. The "flat white" type screen has a lower reflection efficiency than the glass beaded screen but it has the advantage of a wide angle of reflection; consequently, it is suitable for wide shallow rooms where the audience must be seated close to the screen as well as off to the side. In such cases they will obtain reasonable brilliance of image and a minimum of distortion.
8. The commentary should be organized and planned in such a manner that it will move along at a smooth pace without holding any one slide in the projector for an unusual period of time. The commentary generally should be brief and should augment the slide unless it is for training and educational purposes. Where transparencies are shown for the pleasure of the audience, care should be exercised to avoid long, detailed descriptions and explanations. Excuses should never be offered for the transparency being shown. If the exhibitor should feel that an excuse is necessary, it is generally an indication that that particular transparency should be removed from the exhibition group.
9. The use of a suitable musical background will frequently enhance the presentation and assist in establishing the mood, atmosphere and locale for the transparencies being exhibited. Background and "cue" music must be carefully selected, coordinated and tailored to fit the needs of the particular slide group involved. Since it is intended only to create an atmosphere, it must be subdued and designed to create the illusion of being a part of the scene shown. If the audience is constantly aware of the accompaniment it is evident that the selection, cueing, or control is faulty and in need of attention. An audience generally associates soft, dreamy Hawaiian music with scenes of palm-fringed bathing beaches, while a march conditions them for a parade or scenes of a military review. Character music such as "Side Walks of New York" might fit a street scene in a large city but would be improper for a picture of a Spanish Senorita in the typical patio. Music used properly can be a real asset—used improperly it can be much worse than none at all. Musical backgrounds can be easily provided with records and a double turn table set up similar to that frequently used to provide musical accompaniment for silent moving pictures. A device for fading from one record to another lends a professional touch to the program.

The above suggestions are offered with the hope that they will aid in a greater enjoyment of color transparencies and result in added pleasure to friends and future audiences.

MOTION PICTURES



FLYING TRAINING

Art Sarno

Big Pictures of Small Subjects

BY ROBERT H. UNSELD *

MORE THAN any other type of amateur movie you can make, the ultra close-up, the extreme, frame-filling enlargement, of a moving subject in color, will bring forth from your living room audience those inarticulate gasps of "Oh!" and "Ah!" that we movie makers thrive on.

There are three ways that such pictures can be made. First, let's take the simplest method and examine briefly all the possibilities of a telephoto lens.

Telephoto Lenses

Long focal-length lenses seem to be used by most amateurs solely for long distance shots, for bringing in the details of a distant scene. These folks are really neglecting the full potentialities of their expensive equipment.

A. Method. If you will note the shortest distance upon which your telephoto lens may be focused, train the appropriate viewfinder on an object at that distance, and examine the field covered, you may be surprised. A 4-inch lens in a 16mm camera focused at 4 feet, covers a field only 4 7/8 in. wide by 3 6/10 in. high. And a 1 1/2-inch lens on an 8mm camera covers a field only 8 in. wide and 6 in. high, at 5 feet. Of course, those small areas are enlarged to fill the screen just as normal pictures do, and the resulting enlargement is often astonishing. You can fill the screen with a couple of bright tulips, or a single peony, and in color they will be terrific.

B. Viewfinder. At these abnormally short distances, the viewfinder will not show the exact field included by the lens. The viewfinder will show a slightly larger rectangle than you will actually photograph on the film, but if you will allow a very little bit for each dimension, it will do very well. The formula I shall

Complete instructions for making those dramatic ultra close-ups of moving subjects are given by R. H. Unseld, who describes three methods

give later will help you to determine the exact field.

C. Exposure. Exposure is determined in the usual manner, but remember that close-ups usually require a wider diaphragm stop than longer shots made in the same light. Do not attempt to photograph objects that are very deep, for the depth of field is quite limited at these short distances; measurements should be made from the film plane to that part of the subject which is most important. Remember, too, the smaller the diaphragm stop, the greater the depth of field. That's the easiest way to do it, but your degree of enlargement is limited somewhat by the shortest distance on the focusing scale. And besides, you may not have a telephoto lens.

Don't let the lack of such a lens

bother you, for even though you may have a universal focus lens on your camera and nothing more, inexpensive supplementary lenses will enable you to obtain even greater degrees of enlargement.

A. Method. On the market are several different gadgets for holding a supplementary lens in front of the camera lens, and at least two camera manufacturers offer such devices, one a very elaborate one. But it is a simple matter to devise a mount yourself.

These simple lenses may be obtained at any optical supply store in three types — flat on one side and convex on the other; convex on both sides; and concave on one side, convex on the other. The first two, perhaps, are preferable.

Only one supplementary lens is used; it should be of a diameter not



The head of a frog becomes a monster through use of telephoto lens.

* Bell and Howell Company.

less than that of the outer end of the camera lens sunshade. If the supplementary lens is larger than the sunshade, no harm will result, but it is well to keep somewhere near that size. The lens should be mounted as close to the sunshade as possible, with the flat side of the first type or the concave side of the third type toward the camera. In order that no extraneous light may enter the camera lens from between its sunshade and the supplementary lens, it is well to provide some sort of a circular shield at this point, such as a short section of cardboard tube. This may be especially important if the supplementary lens is larger in diameter than the sunshade, for the extending rim of glass might catch a stray light ray.

These lenses are available in different focal lengths, usually expressed in the opticians' term "diopters," and in this case focal length simply means the distance from the supplementary lens to the plane upon which the lens will focus. A one-diopter lens, when placed immediately in front of any universal focus lens, will focus that lens accurately upon an object exactly one meter (39.37 in.) from the supplementary lens. (Note that the measuring point is different in this case. When supplementary lenses are not used, the measurement is taken from the film plane to the subject, as described previously.) A lens of two diopters, used in the same manner, focuses on an object one-half meter (19.68 in.) away, and one of three diopters on an object one-third meter (13.12 in.) distant. In other words, simply divide 39.37 in. by the diopter number of your supplementary lens, and you will have its focal length.

The viewfinder of your camera will help determine the approximate field included by the lens, but here again, working at these unusually close distances, it will not outline the exact field even though you correct for parallax. The question here is one of area covered, not the off-set between camera lens and viewfinder lens. Although the viewfinder will show you a very slightly larger field than you will actually photograph, there is a simple formula which will assist you in the preliminary deter-



The telephoto lens is invaluable in nature photography.

mination of the exact size of the field, as well as the distance between camera and subject. It will also help you determine just what supplementary lens is needed if you have a definite field in mind.

A Simple Formula

With "W" indicating the width of the photograph on the film, "F" the focal length of the camera lens, "T" the width of the field, and "D" the distance from the supplementary lens to the subject, W is to F as T is to D.

I have just said that "W" represents the width of the photograph on the film; that is, the width of the camera aperture. However, it is the projector aperture which really determines the width of the picture ultimately thrown on the screen. Most projector apertures are slightly smaller than camera apertures in order to eliminate all possibility of visible frame-lines, so is it not more logical to use the width of the projector aperture than that of the camera aperture? I think it is, because you want to know just what you will get on the screen. You can secure this dimension from the manufacturer of your projector, and make either the width of the field or the distance from lens to subject the unknown, and work out the equation as you please.

For example, you are using an 8mm camera and wish to focus on a field only $4\frac{1}{2}$ in. wide, just about the right size to permit a large butterfly to fill the picture. You want to know how far the subject must be from the lens and what supplementary lens you must use. The focal length of the standard lens on 8mm cameras is $\frac{1}{2}$ in., and we'll consider the "W" dimension to be .173

in., as it is for one of the popular 8mm projectors. The formula becomes

$$\frac{.173}{.5} = \frac{4.5}{D} \text{ or } D = 13 \text{ in.}$$

Thus you find that dimension "D" is 13 in., and we have noted that a three-diopter lens focuses on a point 13.12 in. distant, which is exact enough. Therefore, place a three-diopter lens in front of the $\frac{1}{2}$ in. universal focus lens of the camera, place the butterfly 13 in. from the second lens, and you may be confident of sharp focus.

If the camera is equipped with a focusing mount lens which, however, cannot be focused down to the short distance desired, a supplementary lens may be used in the regular way simply by focusing the camera lens on infinity. Also, camera lenses of focal lengths other than the standard 1 in. for 16mm and $\frac{1}{2}$ in. for 8mm may be used. Simply focus them at infinity and proceed as before.

B. Viewfinder. For alignment purposes be sure to use the correct viewfinder objective or mask for the lens that is in place. When telephoto lenses are used thus, the focal length of the supplementary lens still applies, but the field will be smaller, and since this small field is enlarged to fill the same screen, greater magnification results.

C. Exposure. Supplementary lenses do not affect the exposure required for the picture, but here again, do not forget that close-ups usually require more light than other shots made under the same lighting conditions.

Lens Extension Tubes

Now for the most spectacular type of enlarged movies — the macro shot. With a little time and thought — and some additional equipment — you can fill the screen with the head of a fly, the image so highly magnified that you can see the fur around its neck. Beetles become huge, horrible creatures from another world. The common locust looks like one of the modern automobiles. The inside of your wrist-watch looks like a boiler factory. Such pictures are not at all difficult to make, your subjects are all about you, and your reputation as a movie maker should go up 100 per

cent when your friends see such movies — in full color.

A. Method. If you have a telephoto lens, you have half the extra equipment needed. Again, the idea is to make this lens do something beside giving you close-ups of distant subjects. With telephoto lenses, you recall how very large even the smallest details stand out in the highly magnified picture, although your subject was at a really considerable distance from the camera. Now, a telephoto lens usually cannot be focused on distances less than 4 or 6 feet, but if such a lens could be trained on a subject say a foot or 18 in. distant, as in making close-ups with the standard 1-inch lens of 16mm equipment, you will readily see how very greatly that subject would be magnified. The whole problem is to focus the longer lenses on extremely short distances.

This is done by placing the lens farther away from the film than the normal position. We use what are known as lens extension tubes, short sections of metal tubing resembling the lens barrel, which fit in between the lens and the camera. These collars have inside threads at one end, to take the lens, and outside threads at the other, to fit into the camera. The closer the subject is to the film, the farther must be the lens from that film, and consequently the longer must be the extension tube to be used.

With a given lens tube, the shorter the focal length of the lens used in connection with that tube, the smaller the field will be and, therefore, the greater the magnification obtained. Actually, you could use a 1-in. lens at the end of a 1- or 2-in. tube, but you would have to work so close to your subject that you would have great difficulty in avoiding the shadow of the lens. It is far better

to work with three, four and six in. lenses, even though they are somewhat slower even at full aperture.

Working with a given lens, and any combination of lens tubes, the longer the lens tube, the smaller will be the field. To determine the length of extension tube necessary to include a definite width of field, the following formula can be used:

$$E = \frac{FA}{W} \quad \begin{array}{l} E = \text{extension tube length} \\ F = \text{focal length of lens} \\ W = \text{camera (projector) aperture width (.376")} \\ W = \text{width of field} \end{array}$$

The degree of magnification is the ratio of the camera (projector) aperture to the width of the actual field. A one-to-one ratio is obtained when the extension tube equals the focal length of the lens in use. In other words, a 3" extension tube and a 3" lens would produce an actual-size image on 16mm film.

The depth of field with lens tubes is calculated in the same manner as previously explained, considering the lens focused on the very short distance involved. Of course, the smaller the field (or the greater the degree of magnification) the smaller is the depth of field. You will find that the depth of field is rarely over $\frac{1}{4}$ in., so, if you are photographing an insect, the head and front legs will be sharp, but his rear anatomy will be out of focus.

B. Viewfinder. Viewfinding in macroscopic movies is definitely tied up with focusing and parallax, for in such critical work it is practically impossible to depend on measurement focusing, or to establish the field through a viewfinder and then correct for parallax.

C. Exposure. The matter of exposure is something else again. Since the light-admitting value of the f /stops is tied up directly with the focal length of the lens, and since we have changed that effective focal length by adding an extension, it follows that the f /stops as marked on the lens no longer represent their true value.

I have found that it is usually accurate enough, even with color film, to increase the diaphragm opening one stop over the normal exposure for each inch of lens tube added. However, there are definite ways of calculating the exact f /stop.

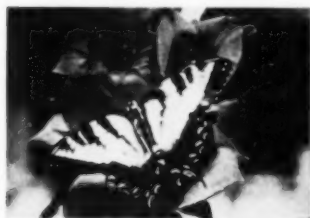
Remember that the f /value is reached approximately by dividing the focal length of the lens by the diameter of the iris diaphragm at that point. Work it backward, and determine the diameter for the f /stop indicated by your meter. Add the length of the extension tube to the focal length of the lens, and divide that sum by the diameter. This will give you the new value for the f /stop marked on the lens. For example, suppose we are using a device known as the Goerz Reflex Focuser (which is 1.38 in. long) and a 6-in. lens, and the indicated exposure is f /8. Six divided by 8 is .75. Six in. plus 1.38 in. is 7.38 in., and if you divide that by .75, the result is 9.8.

Thus f /8, as indicated on the 6-in. lens, has become f /9.8 on the lens with the extension tube added. If you are planning to use one extension tube and one lens all the time, it is easy to work out a table showing the new values for all the stops, and then it would not be difficult to find the f /8 value for the lens plus the extension tube.

However, if you wish to figure directly which stop on the lens only corresponds to f /8 on the lens with the extension, the procedure is somewhat different.

Divide the combined length of the lens and the extension tube (7.38 in.) by the stop indicated by the meter (f /8 in this case) to find the diameter of the iris diaphragm at that point. Then divide the focal length of the lens only (6 in.) by that diameter to find the equivalent, on the f /stop calibration scale, of f /8 on the combined lens and extension tube.

For example, 7.38 in. divided by 8 is .920. Six divided by .920 is 6.5. Therefore f /8 on the lens-plus-the-extension becomes f /6.5 on the



An excellent movie subject in color.



Parallax must be watched on close-ups.

calibrated scale, and that is where your lens should be set if your meter gives you a reading of $f/8$.

Incidentally, in photographing insects, it is important to have all of the light and lens speed possible, for the motions of the insects are so rapid and jerky that they appear to much better advantage when slowed down by the use of 32, 48, or 64 frames per second speeds, preferably the latter. Then too, a normal speed enlarged picture of a tiny object is just that and nothing more — an enlargement. If the insect is made to move slowly and ponderously on the screen, it takes on size and mass and becomes something awe-inspiring. Of course, these faster camera speeds require wider apertures.

Parallax

I have left this phase of making all these types of close-ups for a separate discussion, for it is most important. Parallax is the term designating the difference in position between the viewfinder lens and the

camera lens. When you are photographing a field 3 or 4 feet or more in width, this very small figure is of no consequence and may be ignored, but when the offset is $\frac{1}{4}$ or $\frac{1}{8}$ the width of the field, or more, its correction is vital.

For the first two methods described — the use of telephoto lenses alone, or the use of supplementary lenses — in most cases it will be sufficiently accurate, after the subject is properly centered in the viewfinder, to so move the camera that the photographic lens is placed in the position held by the viewfinder when the subject was centered. There are alignment gauges on the market to accomplish this movement accurately, and the supplementary lens close-up attachment made by one manufacturer for its 8mm and 16mm cameras is so devised as to have its own viewfinder, which completely eliminates parallax.

In any event, from the manufacturer of your camera you may ascertain the amount of horizontal and/or

vertical offset between lens and viewfinder, and devise your own method of properly moving the camera.

For the use of lens tubes, some method of through-the-lens focusing and visual determination of the field is almost mandatory, since the depth of field is so limited that measurement focusing is impractical, and since the field is so small that camera movement is magnified out of all normal proportions.

The manufacturers of the two most popular 16mm magazine-loading cameras also provide a focuser which may be slipped into the camera in lieu of the magazine. Sighting through this focuser, you look through the camera lens at your subject and determine the exact field and focus. There are also focusing devices of the sort typified by the Goerz Reflex Focuser, a focuser which will fit any 16mm camera having the standard Type "C" lens mount, as well as any 8mm camera that will take "C" mount adapters. It is, in effect, a lens extension tube 1.38 in. long, within which is a movable prism, plus a viewing tube extending outward at right angles. Also, two makes of highly specialized 16mm cameras have built-in provisions for through-the-lens focusing and field determination.

As for 8mm equipment, at least one turret-head camera can be equipped with a through-the-lens focuser and an alignment gauge (necessary because focusing is not accomplished in photographing position). Until more critical focusers are available for the magazine 8's, some such device as the Goerz is required.

Whatever degree of enlargement you try, you can be sure of interesting, startling, sometimes horrible, pictures. I have one scene of a horde of black ants attacking a defenseless white grub, in which the grub's struggles, as he is being done to death, are too unpleasant to be shown.

And if, in the past, you have been so eager to see your film that you couldn't wait to project it but unrolled the whole thing, holding it up to the light, your impatience has been as nothing compared to the suspense with which you'll await the return of your shots of the green praying mantis eating the yellow bug.



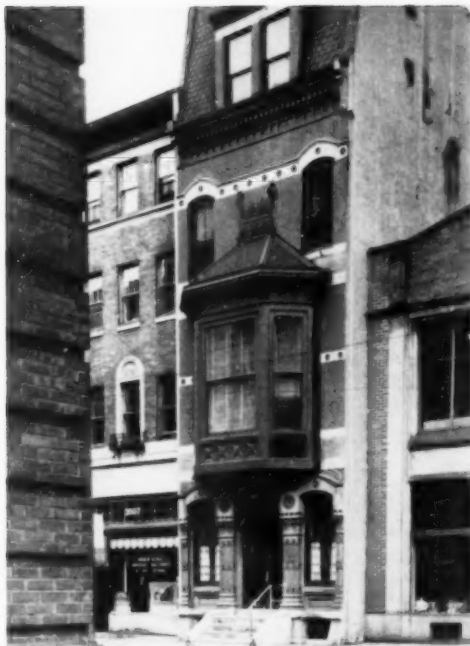
CURVATURE

E. F. Schafer

THE PSA

PSA'S NEW HEADQUARTERS

Philip Cass, Hon PSA



PSA ACQUIRES

NEW HEADQUARTERS BUILDING

THE PHOTOGRAPHIC SOCIETY OF AMERICA, at long last, has acquired headquarters adequate for its operations. Not only that, but it looks as if the Society will go into 1950 with its headquarters in its own *owned* building, free and clear of mortgages, and with accommodations sufficient to meet even a 400% increase in membership.

Early in November the Society took possession as new owner of the former Wanamaker home at 2005 Walnut Street, Philadelphia, a half-block from Rittenhouse Square. The property comprises an 18 x 117-foot lot running from Walnut Street through to Moravian Street, with a four-story brick and brownstone building for headquarters use and a four-story brick garage building which will be rented to suitable tenants.

Through the medium of "Cornerstone Memberships," the property has been acquired by the Society at no capital cost to the membership at large. It is estimated that the new headquarters can be maintained and operated at a cost representing a savings of one-third to two-thirds in recent overhead. And the Society, virtually for the first time in its history, will have adequate space for headquarters offices and operations, adequate meeting rooms for the Board of Directors and other groups, facilities for the growing PSA library, and commodious storage space, long an acute and expensive problem.

The property, valued for insurance purposes approximately at \$40,000, was acquired for substantially less than \$30,000. Originally, it was estimated that "Cornerstone Memberships" would meet the \$9,000 down payment and provide a little extra money for amortizing the \$18,000 mortgage over 12 to 15 years. Indications now are, however, that the number of "Cornerstone Members" may exceed the 150 needed to pay for the property in full, and the Society thus can enter upon a new phase of its history not only with its own building, but with substantially reduced overhead.

Charges for maintaining and operating the building are estimated at barely more than one-third what the Society has been paying in rent alone for headquarters offices. Rentals accruing from tenants of the converted garage building are estimated to provide the Society with an income exceeding \$1,000 annually, and as being sufficient to meet any headquarters operating expenses. It is possible that additional income may be obtained from renting office space in the new building, although that may not be done within the near future.

The new headquarters property is regarded as temporary, and the property in no wise is considered as being the Society's permanent home. In fact, the Board's Standing Committee on Permanent Home and Endowment will continue its work in this field. However, the headquarters property is viewed as adequate until the Society's membership is multiplied several times. Whenever a permanent home may be acquired, the present

Purchase of Wanamaker Home to Provide Adequate Office Space, Reduce Overhead

property should command sale at a price substantially above its cost to the Society. Not only is it located conveniently to transportation, and adjoins Rittenhouse Square, long the social center of Philadelphia, but it is directly in the path of expansion of Philadelphia's rapidly-growing business section.

The living room and dining room, which, with kitchen, pantry, and lavatory occupy the first floor of the structure, already have been converted into commodious headquarters operational offices. The music room on the second floor has been made into a meeting room for the Board of Directors and other groups. Later it may become the library. Three other second-floor rooms have been converted into offices. The second floor is served by two lavatories.

The four rooms and two lavatories on the third and fourth floors temporarily will be closed except for that space needed for storage purposes. The second building, which has garage space on the first floor, will be converted on the second, third, and fourth floors as prospective tenants may require. Also, it is expected that the present coal-burning hot-air heating system eventually will be converted to oil.

Never before has the Society enjoyed adequate space for its headquarters operations. Headquarters offices originally were housed in a small private Park Avenue apartment in New York, then transferred to one room in Philadelphia's Franklin Institute. About three years ago the Society rented the first floor of a dwelling at 1815 Spruce Street. In all this time the Society has had no adequate space for its growing library, its collection of permanent prints, or its supplies.

In recent years, as headquarters has been equipped with labor-saving and work-accelerating office machinery and equipment, space has been at a premium. In fact, room never was available for the library in the Spruce Street establishment and the Society's collection of photographic books, steadily increasing in number and value, has been kept in dead storage. The library is, in fact, growing at an accelerating rate. All books reviewed in *PSA JOURNAL*, for instance, are donated by the magazine to the Society's library, which, in past years, has acquired many works now out of print and not otherwise available. The library is being cataloged and, when arranged in the new building, will become invaluable for photographers, students, and research-workers.

The new headquarters building, while built shortly after 1900, is of such rugged brick and stone construction as to resist even the vibration of street traffic, which includes the operations of an electric-car line. The interior finish,

of wood, is of quality of material and workmanship which could not be duplicated today. Both of the buildings have had excellent care since their erection, and were constructed so solidly and of such high-quality materials as to facilitate conversion and modernization. Only a minimum of redecoration will be required.

Negotiations for purchase of the new headquarters property, in process for some months, were carried on by

the Home Site Committee under the direction of Chairman Philip Cass, Hon. PSA, of Philadelphia, and with the continuing aid of Treasurer Charles Heller, APSA, and other officers and members resident in Philadelphia. Included in the operations was the taking of legal steps necessary to assure the Society, which is incorporated in the State of Illinois, of full right to own property in the Commonwealth of Pennsylvania.

The New Cornerstone Membership

BY STUART M. CHAMBERS, HON. PSA

THOSE ATTENDING the PSA Convention in St. Louis last month witnessed a most inspiring demonstration of faith in the future of PSA. With the purchase of the Wanamaker home in Philadelphia as a headquarters building, the Society was faced with the problem of devising a plan for financing it.

Of all the suggested methods, the most practicable seemed to be some adaptation of the life membership idea. A committee consisting of John Magee, Phil Cass, Charlie Heller and the writer was given the task of developing such a plan. We picked up a suggestion here and there, and gradually the idea took form. The selection of the right name posed quite a problem, and we can thank Frank Fenner for conjuring up the name, "Cornerstone." By Saturday morning the plan was completed and was approved unanimously by the Board of Directors.

A new class of life membership known as a "Cornerstone" membership will be established. Each Cornerstone Member will contribute a minimum of \$200, which will entitle him to life membership in the PSA and one division. Until such time as our new headquarters building is completely paid for, all funds received from Cornerstone Memberships will be used solely for that purpose.

It is also provided that present life members can become Cornerstone Members by contributing \$100 to the building fund, making their total contribution \$200. Members who have contributed to the building fund earlier this year may apply such contributions toward their Cornerstone Membership. In this way everyone will be on the same level, and all will be given full credit for their past help.

The enthusiasm which greeted the plan was almost unbelievable. Even before presenting it to the Board, the committee had 18 applications for the new type of membership, and this was doubled during the luncheon recess.

It was decided to announce the plan to the members at the banquet Saturday night, and by the time we were ready to sit down the list had grown to 50. Doris Weber alone secured twelve applications. At the banquet, following the explanation of the plan, the list of applications for Cornerstone Memberships was read, but before the reading was finished several men were on their feet asking that their names be added. When the smoke cleared away,

the list stood at 65. Since the convention applications have been coming in by mail and wire, and as I write this the list stands at 82.*

Three members—Ned Crossett, Mildred Hatry, and Phil Cass—having already contributed more than \$200 to the building fund this year, automatically became Cornerstone Members. Mr. Cass, the only one of the three at the convention, generously added another \$200 for his Cornerstone Membership. A half dozen or more life members subscribed the additional \$100 to join the Cornerstone parade. We have three man-and-wife teams—Tom and Caryl Firth, Howard and Charlotte Fredrick, and Norris and Dorothy Harkness. Dr. Menocal of Havana and Sam Vogan of Toronto give the list an international flavor. The enthusiasm was contagious!

It is planned to give signal recognition to Cornerstone Members, which will be limited to 250 in number. Each member will receive a suitable certificate and a distinctive emblem signifying Cornerstone Membership. The names of present applicants are printed in this issue of the JOURNAL, and each year the annual Directory Issue will carry a complete roster of Cornerstone Members. The names also will be inscribed on a suitable scroll which will be on display permanently at the Headquarters office.

In order to make the membership available to as many of the members as possible, arrangements have been made whereby the amount subscribed in connection with a Cornerstone Membership may be paid in one payment or by an initial payment of \$50.00 with the balance in regular installments over a two-year period. We have been advised by the Bureau of Internal Revenue that contributions in connection with Cornerstone Membership are a tax-deductible contribution.

While the initial response to the announcement has been most gratifying, there is still a big job ahead of us in bringing Cornerstone Memberships up to the limit of 250. It is urged that all who have faith in the future of

* The list has grown to 114 names between the time this was written and set in type. I want to give credit to John H. Magee and Walter S. Meyers for the splendid help they gave in New York and Rochester, without which we would not have passed the 100-mark.

PSA and are in a position to become Cornerstone Members do so at once so that the financing of the headquar-

ters building can be completed without delay and the PSA placed on a sound financial basis.

LIST OF PSA CORNERSTONE MEMBERS

Gregor S. Affleck, Bloomfield Hills, Mich.
E. L. Arnold, Rochester, New York
Azel Bahnsen, APSA, Yellow Springs, Ohio
C. B. Ball, Excelsior Springs, Mo.
Dr. John P. Benus, FPSA, Philadelphia, Pa.
Isadore Berger, APSA, Detroit, Mich.
Joseph M. Bing, FPSA, New York, N. Y.
E. W. Blew, APSA, Davis Dam, Nev.
Eva L. Briggs, Detroit, Mich.
B. Erle Buckley, APSA, New York, N. Y.
Mary Eugenie Buxton, Memphis, Tenn.
John G. Capstaff, Rochester, N. Y.
Philip Cass, Hon. PSA, Philadelphia, Pa.
Stuart M. Chambers, Hon. PSA, APSA, St. Louis, Mo.
Lyman W. Close, Toledo, Ohio
Dennis A. Clulow, Chicago, Illinois
C. J. Crary, APSA, Warren, Pa.
E. C. Crossett, FPSA, Pasadena, Calif.
Eleanor Parke Custis, FPSA, Washington, D. C.
Stanley C. Dakin, Nanaimo, B. C., Canada
Jacob Deschin, APSA, Brooklyn, N. Y.
J. G. Dombroff, New York, N. Y.
Albert Drucker, Chicago, Ill.
Grant Duggins, FPSA, Sacramento, Calif.
Charles E. Emery, Annapolis, Md.
Adolf Fassbender, Hon. FPSA, New York, N. Y.
Frank Fenner, Jr., APSA, Barrington, Ill.
Mrs. Caryl Firth, Trappe, Md.
Roger Firth, Trappe, Md.
Thomas T. Firth, APSA, Trappe, Md.
Fred W. Fix, Jr., Chicago, Ill.
C. K. Flint, Rochester, N. Y.
Mrs. Charlotte L. Fredrick, Chicago, Ill.
W. Howard Fredrick, Chicago, Illinois
Morris Germain, New York, N. Y.
Henry C. Goldsmith, Newark, N. J.
Paul L. Gittings, FPSA, Houston, Texas
Ralph E. Gray, APSA, San Antonio, Texas
Shirley M. Hall, APSA, San Marino, Calif.
Carl Hallauer, Rochester, N. Y.
Mrs. Dorothy Louise Harkness, New York, N. Y.
Norris Harkness, APSA, New York, N. Y.

Mrs. Mildred Hatry, APSA, New York, N. Y.
Nicholas Haz, FPSA, Skokie, Ill.
Charles Heller, APSA, Philadelphia, Pa.
Clark H. Hogan, Oklahoma City, Oklahoma
John R. Hogan, FPSA, Philadelphia, Pa.
I. N. Hultman, Rochester, N. Y.
Herbert M. Howison, Berea, Ohio
Vincent Hunter, APSA, Omaha, Nebr.
C. F. Hutchison, Rochester, N. Y.
Alfred H. Hyman, Rochester, N. Y.
Mrs. Olga Emma Irish, New York, N. Y.
Donald Jameson, APSA, Indianapolis, Ind.
H. Jack Jones, Montgomery, Ala.
Robert Keith, Chicago, Ill.
Richard Koch, Philadelphia, Pa.
G. T. Lane, Rochester, N. Y.
Vernon G. Leach, APSA, Chicago, Ill.
Warren W. Lewis, Chicago, Ill.
Rev. Boyd A. Little, Baldwinville, N. Y.
John H. Magee, APSA, New York, N. Y.
Dr. C. J. Marinus, APSA, Detroit, Mich.
Arthur S. Mawhinney, FPSA, New Rochelle, N. Y.
James E. McGhee, Rochester, N. Y.
Donald McMaster, FPSA, Rochester, N. Y.
Mrs. Harold L. Medbery, APSA, Arming-ton, Ill.
Dr. C. E. K. Mees, Hon. FPSA, Rochester, N. Y.
Dr. Armando G. Menocal, Havana, Cuba
Walter S. Meyers, APSA, Rochester, N. Y.
Ray Miess, APSA, Milwaukee, Wisc.
John G. Mulder, APSA, Rochester, N. Y.
C. B. Neblette, FPSA, Rochester, N. Y.
Ellbridge G. Newhall, APSA, Santa Barbara, Calif.
P. H. Oelman, FPSA, Cincinnati, Ohio
Walter E. Parker, Chicago, Illinois
Mrs. Stuyvesant Peabody, Chicago, Illinois
Sewell Peaslee Wright, Springfield, Illinois
Chas. J. Perry, El Paso, Texas
Charles B. Phelps, III, Grosse Pointe, Mich.
Walter J. Pietschmann, Detroit, Mich.
Martin Polk, APSA, New York, N. Y.
Fred Quellmalz, Jr., Hon. PSA, APSA, Kutztown, Pa.
O. E. Romig, APSA, Pittsburgh, Pa.

C. C. Ruchhoff, APSA, Cincinnati, Ohio
Mrs. Helen Sanders, FPSA, New York, N. Y.
Otto S. Schairer, Princeton, N. J.
Rudolph Schiller, St. Louis, Mo.
Lawrence M. Schmidlapp, Cincinnati, Ohio
H. A. Schumacher, APSA, Rochester, N. Y.
Claxton Searle, San Francisco, Calif.
Norma C. Seay, New York, N. Y.
Harry K. Shigeta, Hon. FPSA, Chicago, Ill.
Fenwick G. Small, Rochester, N. Y.
Dr. William F. Small, Newburgh, N. Y.
Dr. Cyril J. Staud, FPSA, Rochester, N. Y.
Adolph Stuber, FPSA, Rochester, N. Y.
S. M. Swenson, Essex Falls, N. J.
James F. Thompson, Cincinnati, Ohio
Dr. Max Thorek, Hon. PSA, FPSA, Chicago, Ill.
Dr. Carroll C. Turner, APSA, Memphis, Tenn.
Lloyd E. Varden, FPSA, New York, N. Y.
Vincent C. Vesce, APSA, Allendale, N. J.
Sam J. Vogan, APSA, Toronto, Canada
Alexander C. Vogt, Brooklyn, N. Y.
Mrs. Charles R. Walgreen, APSA, Chicago, Ill.
Doris Martha Weber, APSA, Cleveland, Ohio
G. C. Whitaker, APSA, Rochester, N. Y.
Dr. Eugene P. Wightman, FPSA, Rochester, N. Y.
Dr. Orrin Sage Wightman, Hon. PSA, New York, N. Y.
Joseph C. Wilson, Rochester, N. Y.
Paul J. Wolfe, Butler, Penna.
Leslie J. Woods, Philadelphia, Pa.
Mrs. Margaret Wright, Bayside, N. Y.

Nominating Committee

President John Mulder, APSA, has announced the appointment of David J. Stanley, APSA, as Chairman of the 1950-51 PSA Nominating Committee. Other members of the Committee include Karl A. Baumgaertel, APSA, Dr. John P. Benus, FPSA, Frank E. Carlson, APSA, and Miss Jane Shaffer, APSA. District Representatives and Divisional officers will be elected in 1950.

A. H. Tarleton

Word has been received of the death, in Hawaii on September 6, of A. H. (Bert) Tarleton, at the age of 75.

Tarleton was a great power for good in photography in the Hawaiian Islands over a period of many years. He was exceedingly active in camera club work, helping to organize the Camera Club of Hawaii and the Camera Club Council of Hawaii. He was the only person ever to be elected a Fellow of the Council.

Tarleton went to Hawaii by sailing ship in 1897. He was collector of Internal Revenue at Honolulu from 1930 to 1933 and then joined the Eastman Kodak Company. Later he joined the Anso division of the Honolulu Paper Company.

Application Blank for CORNERSTONE MEMBERSHIP

Please enroll me as a Cornerstone Member, which gives me a life membership in PSA and one Division, for which I subscribe \$200 payable as follows:

- ☐ I enclose check for full amount.
- ☐ I will pay \$50.00 on or before Jan. 31, 1950, and the balance in quarterly payments.
- ☐ Credit me with \$..... for a previous Life Membership and \$..... for contributions to Building Fund made earlier in 1949.

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The 1949 PSA Honors List

By P. H. OELMAN, FPSA, *Chairman*

IN NOVEMBER 1948 at the Cincinnati Convention the Honors Committee held two meetings at which for the first time since its establishment all members were present. A clarification of the policies and procedures of the Committee was determined upon and following subsequent agreement a statement was issued and published in the February issue of the JOURNAL.

New application forms were prepared embodying this statement and these were distributed by Headquarters upon request. Largely because of this clarification the applications received were better prepared and a larger number of candidates appeared qualified than in the past several years.

The evidence submitted in support of the applications was examined by sub-committees, each headed by a member of the Honors Committee best qualified to evaluate the evidence in particular classification assigned to the sub-committee.

Following preliminary exchanges of information regarding the candidates and the receipt of the reports on evidence, a meeting of the Committee was held in Chicago on August 19th and 20th at which each application was studied and discussed.

A final mail ballot in which every member of the Committee cast a vote was completed on Sept. 1 with the following results:

Two candidates were recommended to the Board for the Honorary Fellowship and six were recommended for the Honorary Membership. The Board approved these recommendations. Eight were elected to the Fellowship and 50 to the Associateship. A list of all successful candidates is appended.

As a retiring member and chairman of the Committee, I wish to acknowledge the splendid cooperation of its other members especially those who without expense to the Society traveled to Chicago to attend the summer meeting.

HONORARY FELLOWSHIPS

- LOYD A. JONES, Rochester, New York
For outstanding contribution to photography through the direction of research in the field of Physics
- HARRY K. SHIGETA, Chicago, Illinois
For unselfish devotion to the advancement of photography through teaching and demonstrating practical techniques

HONORARY MEMBERSHIPS

- PHILIP CASS, Philadelphia, Pennsylvania
For outstanding contribution to the work of the Society through service on the Membership and Home Site Committees
- STUART M. CHAMBERS, St. Louis, Missouri
For distinguished service to the Society over a period of years as an officer and director
- ANNE PILGER DEWEY, Chicago, Illinois
For exceptional activity on behalf of the Society through organization and promotional work
- CHARLES B. PHELPS, JR., Grosse Pointe, Michigan
In recognition of the years of arduous effort which contributed largely to the strength and prestige of the Society

- CONSTANCE L. PHELPS, Grosse Pointe, Michigan
For unselfish devotion to the work of the Society as partner and aid to the late President Phelps
- FREDERICK QUELLMALZ, JR., Kutztown, Pennsylvania
For extensive services in organizational activities and as Editor of the PSA JOURNAL

FELLOWSHIPS

- ANSEL ADAMS, Yosemite National Park, California
For outstanding achievement in Pictorial Photography and teaching
- MRS. JEAN ELWELL, Detroit, Michigan
For outstanding achievement in Pictorial Photography and the dissemination of photographic knowledge
- GOTTLEBER HAMFFLER, Kennett Square, Pennsylvania
For outstanding achievement in Pictorial Photography and the dissemination of photographic knowledge
- JOSEF MUENCH, Santa Barbara, California
For outstanding achievement in the field of Landscape Photography and Illustration
- CYRIL J. STAUD, Rochester, New York
For major contribution to photography in the field of research
- ADOLPH STUBER, Rochester, New York
For invaluable assistance to Camera Clubs and teachers of photography
- HAROLD A. TAYLOR, La Mesa, California
For lifelong devotion to the stimulation of amateur photographic activities
- WOOD WHITESSELL, New Orleans, Louisiana
For unique achievement in the field of Pictorial Photography

ASSOCIATESHIPS

- STEN T. ANDERSON, Lincoln, Nebraska
- P. DOUGLAS ANDERSON, San Enselmo, California
- E. L. BAILEY, Bayside, Long Island, New York
- JOHN J. BEITER, Rochester, New York
- JAMES D. BOBB, JR., Kalamazoo, Michigan
- EARLE W. BROWN, Detroit, Michigan
- JESSE H. BUFFUM, Boston, Massachusetts
- T. A. CARUSO, New York, New York
- EMMETT K. CARVER, Rochester, New York
- F. LEONARD CASBOLT, E. I., New Zealand
- JOSEPH COSTA, Rockville Centre, Long Island, New York
- MORELAND M. DEADERICK, Carpinteria, California
- CHARLES E. DENT, North Hollywood, California
- BORIS DORRO, Santa Barbara, California
- HERMAN HANS DUERR, Binghamton, New York
- DAVID B. EISENDRATH, JR., Brooklyn, New York
- HAROLD F. ELLIOTT, Palo Alto, California
- THE HON. MOUNTSTUART W. ELPHINSTONE, London, England
- RALPH E. FARNHAM, Lyndhurst, Ohio
- KARL FREUND, San Fernando, California
- JOSEPH S. FRIEDMAN, Johnson City, New York
- FRANK E. FULLER, Normal, Illinois
- RAGNAR HEDENVALL, Chicago, Illinois
- EDWARD A. HILL, Fleetwood, Pennsylvania
- LOUISE BROMAN JANSON, Chicago, Illinois
- EDWARD K. KAPFELIAN, Long Branch, New Jersey
- RAYMOND R. LAPILLE, Philadelphia, Pennsylvania
- WAI KWONG LAU, Hong Kong
- HARRY H. LEKNER, New York, New York
- RALPH L. MARON, Elmhurst, Illinois
- HELEN C. MANZER, New York, New York
- CHARLES B. MCKEE, JR., Sacramento, California
- MRS. HAROLD L. MEDBERRY, Armington, Illinois
- RAY MIESS, Milwaukee, Wisconsin

JOHN C. MONDEJONGE, Cleveland, Ohio
FRITZ W. H. MUELLER, Binghamton, New York
ALEXANDER MURRAY, Rochester, New York
KONSTANTIN PESTRECOV, Rochester, New York
S. V. GOPAL ROW, Madras, India
C. C. RUCHHOFT, Cincinnati, Ohio
FERDINAND SCHULZE, Wilmington, Delaware
JANE J. SHAFFER, St. Louis, Missouri

WILLIAM V. SMINKY, Chicago, Illinois
DR. MAURICE VAN DE WYER, Antwerp, Belgium
MRS. CHARLES WALGREN, Chicago, Illinois
DR. SCOTT E. WATSON, San Diego, California
DORIS M. WEBER, Cleveland, Ohio
GAYLORD C. WHITAKER, Rochester, New York
MELVILLE A. WOODBURY, Oklahoma City, Oklahoma
FRANCIS L. WURZBURG, JR., Chappaqua, New York

psa
JOURNAL

News and Notes

Peabody Award

The Stuyvesant Peabody Memorial Award is presented each year to the person who did the most for Pictorial Photography during the preceding year. The services taken into consideration by the 1949 Committee, during the year between the Conventions of 1947 and 1948, were as follows:

Exhibition record, particularly in recognized salons.

Services as a Judge, particularly in recognized salons.

Lectures and talks given before camera clubs and other photographic groups.

Articles written for photographic publications.

Teaching, either professionally or as an amateur, to photographic groups.

Offices held in photographic groups.

Special services advancing the cause of Pictorial Photography, often intangible and anonymous.

It is the opinion of the 1949 Committee, after examining all available records, that Anne Pilger Dewey took a greater part in these activities, in the aggregate, than a number of other very worthy nominees, and the 1949 Award is made to her.

JOHN R. HOGAN, FPSA, Chairman

Publication Dates

As our readers are well aware, this and the last two issues of PSA JOURNAL have been received during the month following the dates on the covers. These delays have been due to a number of circumstances including a fire, moving of our offices, sickness, lack of help, etc. The Annual is a tremendous job and when it is handled entirely by one person, it is practically impossible to get it out on time.

The December JOURNAL will be along in a couple of weeks and the January number, which will include the first of our special supplements, will be off the presses about the 30th of January. With the February number, we should be back on schedule, with the JOURNAL being mailed from Albany by the 10th of the month on the cover.

We have some excellent articles in store for you and several surprises and changes that we hope you will like. Your comments and suggestions are always most welcome and the most interesting will be published in "Letters to the Editor."

FRED QUELLMALZ, JR.

1950 PSA Convention

The 1950 PSA Convention will be held in Baltimore, Md., at the Lord Baltimore Hotel October 18-21. Preliminary arrangements are being made by Charles Emery, 169 Duke of Gloucester St., Annapolis, Md.

An Apology

Through some error, credit was omitted from the October JOURNAL for the beautiful St. Louis picture on the cover. "Wedding of the Rivers" was taken by Charles Trefis, of St. Louis, and has had over 40 acceptances in exhibitions.

New Council

On November 15th a meeting of PSA members belonging to the various camera clubs on the Eastern Shore was held for the purpose of forming a council of clubs, appointing the chairmen of the various committees and other business matters.

The following clubs were represented by the member or members whose names appear opposite the club:

Dover Camera Club, Dover, Delaware—Francis M. Turner
Selbyville Camera Club, Selbyville, Del.—Emory McCabe
Salisbury Camera Club, Salisbury, Md.—Harry F. Baker
Eastern Shore Camera Club—Tom Firth, Lew Startt

The name chosen was The Del-Mar-Va Council of Clubs. Chairman, Tom Firth; Vice Chairman, Lew Startt; Sec. Treas., Homer Littlefield; Print Director, A. Ken Pfister; Program, Levin Hayman; Entertainment, Homer Littleton.

During the summer months a series of outings are planned and it is hoped that all persons who are interested and have cameras will join in these outings. Any clubs wishing to join the council may contact either the chairman or vice chairman.

NOTICE

All applications for PSA Honors consideration in 1950 must be sent to Headquarters prior to April 1, 1950. This advance in date is required for adequately reviewing applications.

Honors Committee

Fox Talbot's Anniversary

The 150th anniversary of the birth of William Henry Fox Talbot will be commemorated on the 11th February 1950 at his home, Lacock Abbey, near Chippenham, England, where most of his early discoveries were made. Miss M. T. Talbot, O.B.E., and the National Trust have kindly given permission for this to be held at the Abbey.

The President of the Royal Photographic Society, Percy Harris, FRPS, and other leading photographers and scientists of this and other countries are taking part in this commemoration.

The photographic world owes much to this brilliant scientist, for the principles of photography that he discovered remain virtually the same as those in use today. An exhibition of his cameras and instruments will be held at the Abbey, arranged as far as possible in the very rooms in which he worked. Many of the identical subjects of his original pictures will be collected or staged, and hundreds of his early photographs (some dating from 1835) will be on view.

During the day, photographers attending the exhibition will be able to take pictures of the very scenes or subjects of his early work, either by means of the actual objects still existing, or by means of costume tableaux staged by members of the Trowbridge & District Camera & Cine Club.

In the evening an illustrated lecture in color on the life and work of Fox Talbot will be given by Harold White, FIBP.

A cordial invitation is extended to all photographers and the public to take part in these celebrations and to see the exhibition. Guides, who will explain the most important parts, will be available to take visitors round the Abbey.

All who are interested should get in touch with Mr. E. Peacock, 59 Northgate Street, Devizes, Wiltshire, England, who will be pleased to supply details.

Notice

It is urgently necessary that the number of advertisements in the PSA JOURNAL be increased. All members can assist by supporting the advertisers and by pointing out that such support results from our advertisements. Members connected with the production of any kind of goods or services are asked to encourage the booking of space in one or more issues of the Society's official publication.

Full particulars may be obtained from PSA JOURNAL, Kutztown, Pa.

PSA JOURNAL 1950 ANNUAL

Kodak
TRADE-MARK



A Merry Kodak Christmas

for you...for everyone interested in photography

NOT in years has there been such a satisfyingly comprehensive holiday display of Kodak merchandise. There are gifts for the seasoned photographer, gifts for the family, gifts for the youngsters—gifts for everyone. The choice is wide in all types of equipment: cameras, still and movie...color slide projectors (there's a wonderful new color slide viewer, too)...darkroom equipment and accessories. Many items have new low prices.

And this year there's plenty of Kodak Film, too. Be sure to ask your Kodak dealer about the exciting new Kodacolor Film, Type A, for indoor shots with clear flood or flash lamps.

As one who is "in the know," you are in a position not only to make your own purchases of photographic gifts but also to advise your friends. Give them the benefit of your knowledge and experience.

It's Kodak for Christmas

The
Kodak
BULLETIN

THESE GIFTS SPELL "MERRY

Every camera enthusiast needs a good, sturdy tripod—one that sets up easily, closes down readily, and doesn't weigh a ton. The Kodak Eye-Level Tripod, pictured at left, fills every need for most amateur still photographers and movie makers. It extends to 5 feet, closes down to 22½ inches, weighs a mere two pounds, is made of aluminum with a steel-hard Aluminite finish to resist scuffing. \$23.33. To go with it (or any other standard-screw tripod), there's the Kodak Turn-Tilt Tripod Head, for ready adjustment of the camera to any desired angle. \$15.46. For the heavier still and movie cameras, select the famous Cine-Kodak Tripod; it has extra sturdiness, reasonably light weight (6½ pounds), and its own pan-tilt head. \$61.25.

Most new Kodak cameras have built-in flash synchronization, and can use an inexpensive Kodak Flashholder. Standard model, pictured below, is \$11.08. The Kodak Photo Flasher, at right, makes a useful gift at only \$1.55—it works with any camera that has "B" or "T" shutter settings.



A Kodak Combination Filter Case, above—either alone or fitted with a selection of filters and other lens attachments—makes an attractive, useful gift. The case only, of handsome leather, comes in two sizes—\$4 and \$4.75. Favorite filters include the Kodak Wratten K2, A, X1, and G, Kodachrome Haze Filter, and Kodachrome Type A Filter for Daylight. Kodak Portra Lenses 1+, 2+, and 3+, a Kodak Lens Hood, and a Kodak Pola-Screen with Kodak Pola-Screen Viewer are other desirable items. Prices of lens attachments vary with size; there's a size to fit almost every popular amateur camera.

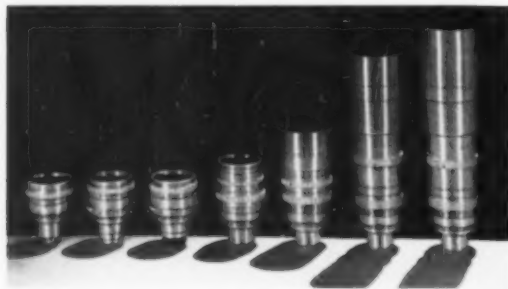


Small and handy, a Kodak Service Range Finder makes an excellent gift. It solves the problem of measuring these critical short distances in close-up shots; aids in long shots, too. \$14.58.



Every camera needs a carrying case for protection. Kodak cases, such as the Field Case at right, are of fine leather, well stitched.

THESE ARE GIFTS TO CHEER THE MOVIE MAKER



Kodak Cine Lenses are the gift for the favorite movie maker on your Christmas list. Select from two classes of fine Kodak-made accessory lenses—superb Kodak Cine Ektar Lenses (at left), the finest ever made for 16mm. and 8mm. movie cameras... and popularly priced Kodak Cine Ektanon Lenses. Standard, wide-angle, and telephoto lenses are available... and for most movie cameras. Kodak Cine Ektar Lenses start at \$75... Cine Ektanon Lenses, at \$49.75.



Cine-Kodak Titler (above) is the easy way to personal title making... and an easy, inexpensive solution to Christmas-gift problems. Only \$8.75.

Take your choice of two sturdy leather cases—Cine-Kodak Zipcase for a Cine-Kodak Camera only... the Combination Case for camera, film, and accessories. Both fit most current and recent Cine-Kodak Cameras. The Zipcase, \$6.75... the Combination Case, \$27.50.



Editing equipment makes a timely gift—and Kodak offers a wide choice in type and price... from inexpensive splicers to the luxurious Cine-Kodak Editing Kit (at right)—a complete outfit, with re-wind, splicer, viewer, editor bracket, work tray, and storage space, all in a compact 14-inch case. Either 8mm. or 16mm. model, \$85.



Kodak

CHRISTMAS" TO ANY CAMERA FAN

For the owner of a Kodak Tourist Camera, f6.3 or either of the f4.5 models, few gifts can match the Kodak Tourist Adapter Kit, below. This kit makes the "Tourist" more versatile than any other folding roll-film camera—equips it to take three additional sizes of pictures, including No. 828 (Bantam size) full-color transparencies on Kodachrome Film, Daylight Type or Type A (for photo lamps). The kit, \$14.50. It includes fittings for No. 828 Kodak Film, a special camera back, three film masks, three view-finder masks, and a convenient pouch-type case to hold all the individual parts.



Above, the powerful, reliable, moderately priced Kodaflector—only \$5. Accepts two No. 1 flood lamps; adapters for No. 2 flood lamps are \$1 a pair. Kodaflector stand adjusts from 2 feet 10 inches to 6 feet 4 inches; folding legs spread wide for stability. Entire unit can fold away in a small carton. Conical, folding reflectors are highly polished—increase efficiency of the lamps seven times! For modest cost, handy storage, and light weight, this is the unit.

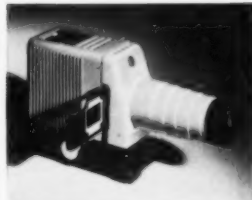
Photo lights are timely—they can go right to work on Christmas pictures. At right is the versatile Kodak Vari-Beam Standlight, adjustable in height from 3 to 5½ feet. Big 12-inch reflector has a semi-matte anodized aluminum surface of high efficiency. No. 2 flood lamp can be adjusted to give either a broad beam or a narrow "spotlight" beam (fine for movies). Base is heavy (4½ pounds) for stability; has rubber-cushioned rim. \$15. Below, the Kodak Vari-Beam Clamp-light—a useful clamp-on unit that can be mounted almost anywhere. Bracket is unusually flexible, permitting the light to be aimed in any direction; clamp is padded to prevent marring furniture or other supports. \$9.75.



TO MAKE A COLOR FAN HAPPIER, CHOOSE FROM THESE



Gift beyond comparison for the color-slide enthusiast is the Kodaslide Projector, Master Model, above. Power-cooled, 1000-watt, with a high-efficiency Lumenized optical system that really puts sunshine into the screen pictures. Ideal either for home use or for lecture use in the largest halls or theaters. Choice of five superb Kodak Projection Ektar or Projection Ektanon Lenses, Lumenized, with apertures up to f/2.3. Price, \$181 up, depending on the lens you select.

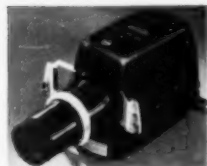


Favorite projector for home use is the efficient, smartly styled Kodaslide Projector, Model 2A, above. High-efficiency, 150-watt, Lumenized optical system; choice of 5-inch or 7½-inch lens. With 5-inch lens, \$47.50.

Slide-filing equipment is always welcome. The new Kodaslide Compartment File, at right, is an excellent gift—\$3.75. Kodaslide Sequence Files and Kodaslide File Boxes are also handy.

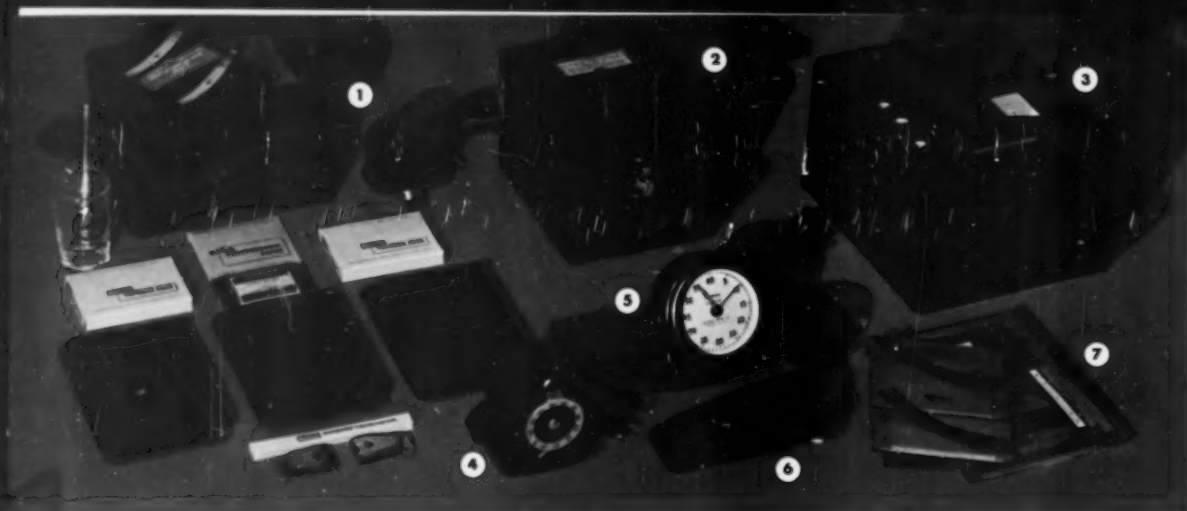


Capable, economical, with ample capacity for home slide shows, is the 150-watt Kodaslide Projector, Model 1A, below. With Lumenized 4-inch f/3.5 lens, only \$27.50.



Most modern way to view full-color slides is the Kodaslide Table Viewer (above, right). It's a projector, slide changer, and screen—all in one unit. Image size from 35mm. Kodachrome slide is 4½x6½ inches—ideal for intimate showings. Daylight brilliance; no need to dim the room lights. Magazine holds up to 75 cardboard slides (or up to 30 glass-mounted) in sequence for showing. Convenient push-pull control shifts slides. \$95.

For the darkroom enthusiast—just turn the page ➡

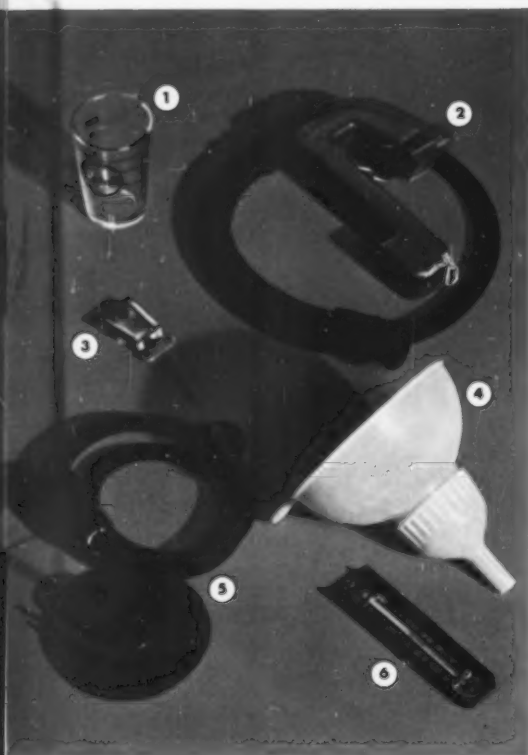


Welcome gifts that make home printing easy . . . 1. **Kodak ABC Photo-Lab Outfit** contains everything the beginner needs to develop and print, \$7.58. 2. **Kodak Home Printer**, an inexpensive contact printer, \$12.50. 3. **Kodak All-Metal Printer, Model 3**, for negatives up to 4 x 5 1/2, \$22.50. 4. **Kodak Electric Time Control** automatically times intervals from 1 to 57 seconds, \$13.50. 5. **Kodak Timer with Tilting Base**, spring-wound, for intervals up to 60 minutes, \$7.50. 6. **Kodak Utility Footswitch** leaves hands free for work, \$10. 7. **Kodak Auto-Mask Printing Frame** takes negatives up to 4 x 5 1/2, \$3.25.

As Christmas Gifts

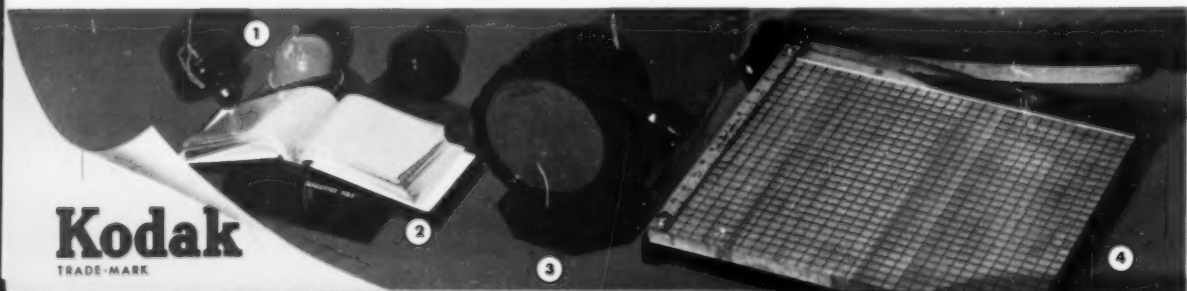
KODAK DARKROOM ACCESSORIES

offer a wide and interesting choice



These Kodak aids for the "chemical" part of darkroom work save time, trouble, and temper . . . 1. **Kodak Darkroom Graduates**, reliable and inexpensive, 8-ounce size, \$.30. 2. **Kodak Automatic Tray Siphon** converts tray into effective washer, \$.25. 3. **Kodak Junior Film Clips**, ideal for smaller sizes of films, stainless steel, efficiently designed, \$.23. 4. **Kodak Combination Funnel**, plastic sections provide 3 sizes of funnels, \$.85. 5. **Kodak Washing Assembly** quickly converts sink into circulating washer, \$2.25. 6. **Kodak Tank and Tray Thermometer**, stainless steel metal parts, scale readings from 20° to 150° F., \$1.85.

Gifts the darkroom fan will appreciate . . . 1. **Brownie Darkroom Lamp Kit**, lamp, three safelight cups, \$1.81. 2. **Kodak Negative Files** protect negatives and negative strips, \$2.25-\$3.25, according to size. 3. **Kodak Adjustable Safelight Lamp** can be swung or tipped as needed. Without bulb, \$7.58. 4. **Kodak Senior Trimmer, No. 5**, accurate rule, fine steel knife, 15-inch size, \$12. At your Kodak dealer's. Prices include Federal Tax where applicable. Eastman Kodak Company, Rochester 4, N. Y.



Kodak
TRADE-MARK

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1528 Walnut Street, Philadelphia 2, Pa.

PSA JOURNAL 1950 ANNUAL

It is with genuine regret that we must record the resignation of Burton D. Holley, APSA, as Chairman of the Pictorial Division.

Through his indefatigable efforts, Burton has placed the Pictorial Division and the Society on a truly world-wide basis, through the medium of the PSA International Portfolios.

To the Chairmanship of our Division he brought the same conscientiousness and untiring application that have characterized all his activities in the organization.

No greater compliment can be paid Burton, than to recite the fact that those who met him as a co-worker, soon came to consider him a valued friend—a friendship that will outlive the circumstances of its cultivation.

But every cloud has a silver lining—

Burton's unexpired term of office will be filled by William E. Chase, APSA, of St. Louis, Missouri.

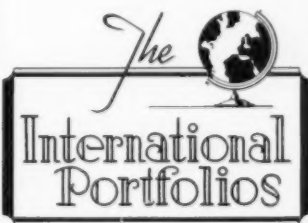
Gene, as he is known to his many friends, is not new to the affairs of the Society or the Division. He has successfully served both in several capacities, and brings to his present position a background and experience which will insure the efficient administration of his new duties.

Those of us who know Gene personally attest to his loyalty to PSA and the Division that has sought his services. To no less extent is he concerned with the benefits to be derived by the individuals and clubs that comprise the Society membership.

teach me on photography that I do not already know?"—So I went home, picked up the first print I found, (a waste one, of course) and delivered print, dollar, portrait, and biography, and said to myself, "Well, Jorge, you can relax, for de Moya will now leave you alone."



CAMANITO



The Story of a Picture

BY JORGE FIGUARO,*
LA HABANA, CUBA

When my friend, Angel de Moya, APSA, ARPS, asked me to join the First Cuban-American Portfolio, I accepted, but without any great interest, believing that activity to be a waste of time and money, for I asked myself, "What can those Americans



LUZ EN EL SENDERO

* Member, First Cuban-American Portfolio.

Time passed, and I forgot all about the portfolio until it came back, and then I received the surprise of my life!

The first things that impressed me were the friendliness of the American members, and their evident desire to know more about us. Then, the simple way in which they write about their photographic activities, with no false pride or foolish ideas about their superiority. They also show a desire to help us improve our photographic work, as can be seen by their encouraging words and their just, but friendly, criticisms of our pictures.

I am not ashamed to confess that one of the most severely criticized pictures in the portfolio was "Caminito." A few liked the mood, others objected to the unsharpness of the print; but they all seemed to agree that the tree on the left spoiled the possibilities of the picture. I quote some of the comments:

1. "Caminito" would have greater appeal if the maker had walked further into the picture to eliminate the heavy distracting tree.
2. The tree to the left is a post-like note that robs the...
3. Why not burn in the left side and top until the offending tree...
4. My eyes follow each opening for a way out, a path, and finally I feel that I am trapped.
5. Why don't you make a long vertical panel, cutting off three inches on the left side, one off the right, and two and a half off the top?

This last criticism by Burton D. Holley was the one that interested me most. I read it several times, did as suggested and then came to realize how many good pictures I had thrown away because it had not occurred to me to crop them properly. Silly, is it not?

Well, I went into the darkroom, made several prints on the new format and delivered them to friend de Moya to send to the international salons under the new title of "Luz en el Sendero."

Final result: Eleven acceptances of "Luz en el Sendero" in six months, as compared with only two acceptances that "Caminito" had had in five years. Can there be a more positive proof of the value of the International Portfolios?

South Africa

The words of introduction in the Notebook of the Second South African-American Portfolio are so pertinent, and so well express the aspirations of all PSA International Portfolios, that I take the liberty of copying them verbatim. Nat Cowan, APSA, ARPS, General Secretary of these Portfolios, and Honorary Pictorial Division Representative to the Union of South Africa, writes:

Greetings, America!

South Africa sends this, the First Circuit in the Second Circle of the South African-American Portfolio, to you in the same spirit of cordiality and good will as that which accompanied both sides of the First Circle. This is more than just another collection of prints in a portfolio; it is more than just a desire on our part to show you what we are doing in the realm of pictorialism; it is more than just the efficient routine of the portfolio organization.

It is very much more! It is the bond which unites us, not only as keen photographers, but as citizens of two great nations. It is a symbol of



Dr. Ernest To and Francis Wu, FPSA, celebrating an addition to the House of Wu.

our ability to get together, whether it be for the purpose of affording constructive criticism on each others' prints, or whether it be for greater issues! Let there be no restraint, then, in your comments on the pictures, and your remarks in the notebook. We need the other fellow's point of view, his tastes and ideas, and we shall look forward with keen anticipation to the return of the portfolio, full of information and news of your domes and aspirations.

The Secretary of the 2nd Circle is no other than the distinguished photographer, writer, editor, and lecturer—A. D. Bensusan, FRPS, APSA, of Johannesburg. Members come from the Durban Camera Club as well as from the Johannesburg Photographic Society. Mr. Bensusan says: "South Africa is a vast country, and we have wonderful opportunities to produce work which is distinctive of our land—and I sincerely hope that the collections of work that you will receive from time to time will show something of our countryside, our natives, our mines, mountain scenery, coastlines, industries, and so on; and I'm quite sure this will lead to a closer understanding amongst us."

Foreign Visitors

Dr. Ernest To

Photographers of the Bay District of San Francisco were honored recently by a visit from Dr. Ernest To, of Hong Kong, China, who is en route with his family on a world tour, first stopping in San Francisco, then Los Angeles, Chicago, St. Louis, Rochester, and finally New York, where he expects to stay for two months before going overseas.

A letter from Francis Wu, FPSA, of Hong Kong, introduces Dr. To. He says:

Dr. To, a PSA member, is a good friend of mine. He has recently been elected Chairman of the Alpha Chapter of the International Pictorial Alliance here. He is a member of our 6-20 Klub, and is also Vice-President of the Photographic Society of Hong Kong. For the past few years he has been consistently the most successful exhibitor in our local monthly competitions amongst the advanced workers. He is the leading radiologist in Hong Kong, and intends to visit the various clinics in America during his stay there.

While in San Francisco, Dr. To was entertained by Mr. and Mrs. C. S. Loeber. They invited several of San Francisco's photographers to meet him at the Loeber gallery, in connection with the San Francisco store, where Dr. To showed his prints. Among those present were Karl A. Baum-

gaertel, APSA, Chairman of the PSA Color Division, Elmore Adams, APSA, Viva McDonald, Albert Porter, C. S. Loeber, FPSA, Virginia Loeber and several others. The pictures were discussed, and this pleased the good Doctor considerably. The prints were left on display there during the week of his stay in the City. Mrs. Loeber also arranged for him to attend a Mission Camera Club meeting.

Stan Loeber writes: "Dr. To has an innate feeling for composition. He makes interesting pictures. He made his own texture screen by photographing a curtain his wife had in the home. He has numerous montages which are well done. His subject material seems to run to the casual—his wife, his little girl, the models used at his club. Evidently he photographs whatever is at hand. He seldom attends the 6-20 Klub. They get up too early in the day!"

Stan also adds: "He is a man of small stature, about fifty years of age. He speaks perfect English."

Angel de Moya

Another California visitor was Angel de Moya, APSA, of Havana, Cuba, who traveled by bus via Miami, Florida, where one of his children resides, through Texas to see Secretary F. J. Schmidt at San Antonio, then on to Los Angeles to visit his sister. From there, he stopped over at Sequoia National Park, and then stayed in San Francisco for a couple of days, making a stop at Vina to see the Robinsons and to meet with "The Kamera Kranks" before going on to Portland, thence to Yellowstone Park and Milwaukee where the Robinsons and Sam J. Rawley, American General Secretary of the Cuban American Portfolios, were his hosts.

Robinson Honored

Appointment of Mrs. Andree Robinson, General Secretary of the PSA French-American Portfolios, as "General Secretary for Club International of Photography to the United States" has been announced by Mr. Gilles Boinet of Hede, France, known to us as the General Secretary of the PSA French-American Portfolios abroad. This is an honor well-deserved by Andree, who has worked hard and successfully to establish the portfolio here and overseas.

Upon request from the French Secretary for a collection of prints from top-flight American photographers, Andree arranged for an "All-Star Special French-American Portfolio No. 1." In reply, Mr. Boinet wrote he was "speechless over the beauty of this portfolio just received."

Membership is as follows:

FRENCH

Mr. Gilles Boinet, Hede, (Hle et Vilaine)
Mr. Mascht, Paris
Mr. Michaud, Paris
Mr. Pierre Auradon, Paris
Mr. Goizet, Paris
Mr. Georges Coulon, Niv., (Alpes Maritimes)
Mr. Andre Chevenet, Vichy, (Allier)
Mr. Quinto Albicocco, Cannes, (Alpes Maritimes)
Mr. Shettle, Nantes, (Loire Inferieure)
Madame Laura Albin Guillot, Paris
Mr. Tomerez, Paris
Mr. Etienne Blandin, Rennes.

AMERICAN

John G. Mulder, APSA, Rochester, N. Y.
 Frank R. Fraprie, Hon. FPSA, Boston, Mass.
 John R. Hogan, FPSA, Philadelphia, Penn.
 Burton D. Holley, APSA, Downers Grove, Ill.
 A. Aubrey Bodine, FPSA, Baltimore, Md.
 Harry K. Shigeta, FPSA, Chicago, Ill.
 Roy Hirschburg, APSA, Richmond, Ind.
 Mrs. Frances S. Robson, APSA, Vina, Calif.
 Laverne L. Bosair, Detroit, Mich.
 Lyall F. Cross, Wyandotte, Mich.
 L. Whitney Standish, FPSA, Boston, Mass.
 Gerhard H. Bakker, Milwaukee, Wis.
 Mrs. Mildred Hatry, APSA, New York, N. Y.
 Wood Whitesell, New Orleans, La.
 Mrs. Andree Robinson, Secretary, Milwaukee, Wis.

The Secretary of French-American Portfolio Circle No. 2 is Miss Yvonne Robinson of Milwaukee, and the French Secretary is Lucien Brillant. Secretaries of Circle No. 3 are William Deffner of Milwaukee, and Jean Bourdon, of France.

Mrs. Robinson recently sent a translation of a letter she received from Mr. Gilles Boinet, which reads:

"Mr. Brillant (Secretary of Circle No. 2) and I have examined the Second French-American Portfolio with the greatest of care. We are very enthusiastic over its contents. All the pictures are excellent, with a variety of subject matter, but none can leave you indifferent."

Did You Know That - -

—The Second Circle of the Australasian-American Portfolios has been organized? General Secretary Edith Royke states that Frank A. Bingham, 915 So. 19th St., Lafayette, Indiana, will be the American Secretary and Leo A. Lyons, of Fort Kembla, Australia, the Australasian Secretary. American prints were shipped to Australia in June, and word has been received that the overseas prints are due here almost immediately. The Third Circle is in process of formation and will be a portrait portfolio.

—In the Australasian *Photo-Review* "Lost and Found Department," we saw this item which may confound camera toters? "The Repair Department of Kodak Ltd., Adelaide, reports having discovered inside the front of a Box Brownie forwarded for repair three small eggs, which upon being opened, were found to contain an equal amount of lizards. Any claimants?"

—Appearing in the June 1949, AP-R is the following: "Mr. E. Robertson, ARPS, was happy to receive from Holland the medal which he was awarded in recognition of his having four prints accepted at the 1949 Focus Salon? He reports that it is the best of the kind he has ever seen, most beautifully finished." Mr. Robertson is a member of the First Australasian-American Portfolio, and is the foremost character-portraitist of Australia. He has forwarded 25 of his studies to Dr. Glenn Adams of Cincinnati, Director of International Exhibits, for a one-man exhibit for circulation in the U.S. In return, Australia will receive a set of prints from Dr. Adams.

But although Mr. Robertson's specialty is character portraiture, we find a beautiful mood picture in the June 2nd *Amateur Photographer* (England), entitled "Mid-

THE PSA INTERNATIONAL PORTFOLIOS

Director, Miss Jane J. Shaffer, APSA
 5466 Clemens Street
 St. Louis, Missouri

Portfolio	General Secretary
Anglo-American	Burton D. Holley, APSA, 4425 Seeley Ave., Downers Grove, Illinois
Canadian-American	Rennie I. Welser, 6727 N. Sioux Ave., Chicago 30, Illinois
India-American	Otho B. Turbyfill, 1632 E. 84th Place, Chicago 17, Illinois
Australasian-American	Edith M. Royke, 810 Ninth St., Apt. 8, Sioux City 10, Iowa
Cuban-American	Sam J. Rawley, 4428 No. Cramer St., Milwaukee 11, Wisconsin
French-American	Mrs. Andree Robinson, 4428 No. Cramer St., Milwaukee 11, Wisconsin
Swedish-American	Ragnar Hedenvall, 2600 Thorndale Ave., Chicago 45, Illinois
South African-American	
Egyptian-American	Alfred Watson, APSA, 457 Huxley Drive, Buffalo 21, New York
Belgian-American	Hugh N. Montgomery, 812 American Life Bldg., Birmingham 3, Alabama
Chinese-American	Harry R. Reich, 286 Schenck St., North Tonawanda, New York
Netherlands-American	John C. Moddejonge, 7414 Manhattan Ave., Cleveland 9, Ohio
Dominican-American	Sten T. Anderson, 3247 Que St., Lincoln 3, Nebraska
International Medical Portfolios	Leo C. Massopust, c/o Marquette Medical School, 561 N. 15th St., Milwaukee 3, Wisconsin
Costa Rican-American	Langford H. Davis, P.O. Box 1387, Lakeland, Florida
Caribbean-American	Burton D. Holley, APSA
International Control Process	Dr. L. L. Handy, APSA, 716 West Alabama, Houston 6, Texas

summer" by this same artist, depicting sheep backlit by the sun and framed by trees. This was a winner in the A. P. Overseas Contest. Mr. Robertson is also a writer of distinction. In the June AP-R appears an article by him about Adelaide's oldest amateur—88 year-old F. C. Krichauff. Also in the May issue of the same magazine, Mr. Robertson had an article on "Cloud Inclusion Simplified."

—Another of the Australasian-American Portfolio members is a prominent photographer in his home territory as well as abroad? Leo A. Lyons, ARPS, of Port Kembla, Australia, Secretary of the Second Circle, who had a full page reproduction of his "Phillips Lane" in the January 1949, *The Folio*, conducts a class in photography at Wollongong Technical College. His wife, Molly, also is an enthusiastic photographer, as evidenced by the reproduction of one of her prints, "The Little White Spire," in the April 6th *Amateur Photographer* Overseas Competition, and "Pether's Shed," in the May AP-R. Mr. Lyons also had a print, "Fairy Penguins," reproduced in the Aug.-Sept. 1949 issue of *Nature Magazine*, as well as in the Chicago *Daily News*, during the Chicago Nature Exhibition. His article in the June 1949 AP-R on "The Salons—Pro and Con" is encompassing and covers both the faults and advantages of salon exhibiting. It ends with the reminder, "We do not hate to please the public, but if we want our art

appreciated, it must be understandable. By all means let us select subjects that are good; by all means let us educate people into appreciating a well-composed scene rather than a photograph of the local swimming pool; but while we depend upon visitors to our salons for support, let us lead them gradually, unsuspectingly, up the garden path of advanced pictorial appreciation."

—A line from the AP-R of June, again, gives us the news that our distinguished friend and portfolio Secretary from Bangalore, India, Dr. G. Thomas, is receiving congratulations on his election to the Fellowship of the RPS?

—We find reproduced from the 6th New Zealand International Salon winning prints by other Australasian portfolio members: Dr. Raymond Kirk, F. L. Casbolt, and H. A. Larsen, General Secretary, Australasian-American Portfolios? We also see on the next page a picture of "Salon Director" H. A. Larsen and his wife, which we are happy to have, for every picture of our "opposite" members in our countries brings them closer to us.

—Members of the South African-American Portfolios are also doing well in overseas competitions in the *Amateur Photographer* contest? B. J. Kloppers and G. F. van Tonder have prints in the June 8th and 29th AP.

—Again referring to the AP-R, it in turn gives extracts from the Johannesburg

Photographic Society Monthly Bulletin of October 1948, quoting Karel Jan Hora's lecture on "Pictorial Composition"? After reminding his listeners that whatever they photograph, they photograph *space*, he explained to them the meaning of the terms foreground, middle distance, and distance, and the importance of keeping these parts properly separated in order to obtain proper depth, especially in landscapes. He explained briefly the method of dynamic symmetry employed by graphic artists and outlined the influence of modern graphic styles, modern music, dance, and poetry on pictorial photography. At the end of his talk he quoted from a paper by Dr. S. D. Jouhar, FRPS, who defined a pictorial photograph:

A pictorial photograph is mainly an aesthetic, symbolic record of a scene, plus the artist's personal comment and interpretation, capable of transmitting an emotional response to the mind of the receptive spectator. It should show originality, imagination, unity of purpose, a quality of repose, and have an infinite quality about it.

In Lanelet Vining's column in the *Amateur Photographer* for August 10th, is a "candid" picture of R. G. Fennah, FRPS, of the Second Circle, Anglo-American Portfolios? He is pictured with his wife's "Mr. Chips," the majestic white Persian cat which he has made famous through his portraits taken of the animal. Mr. Fennah is famous in England for his animal pictures, and he has sent us some excellent prints through the portfolios. In connection with this print, Mr. Vining gives his definition of a "candid shot," as it applies to the Fennah picture: "A photograph of a person or persons, or a situation, obtained without posing, preparation or arranging, using only the available light, the exposure being made without any warning being given the subject, although he or she may know that I am in possession of a camera." He also adds that any camera, large or small, can take a candid picture.



After a brief but constructive tour of duty as Editor of *The Folio*, Sewell P. ("Spec") Wright has laid down his blue pencil to fill the important position of Secretary of the PSA.

After an equally brief but not so constructive period of effort as Associate Editor—News of the Pictorial Division, I find myself rattling around in Spec's shoes.

It is not with the slightest trace of presumption on my own score, but with genuine pride in the capable staff of Associate Editors, that I assure you that *The Folio* will not retrograde from its enviable position among the Division news outlets

in the PSA JOURNAL. Through my close association with the departmental Associate Editors, I have developed an intimate knowledge of their abilities, and a confidence in their continued, self-sacrificing loyalty to the editorial work in which they are engaged.

But the maintenance of a standard, no matter how excellent, is not progress. We of the editorial staff must in some way contribute to the further advancement of *The Folio*, before it can be said that we have continued to keep faith with our predecessors who conceived it and brought it, so successfully, through its critical developmental period. This is our moral obligation, and this shall be the object of our efforts.

In what way can we add to the interest value of *The Folio*? That is not a rhetorical question, but a direct appeal to you—the readers, and we hope that you are many. There are over 4000 members of the Pictorial Division, and I consider that I am working for that many persons. *The Folio* is your voice, and we wish it to be as truly representative as possible.

If you like *The Folio*, an expression of approval would be deeply appreciated, and would inspire even greater efforts to serve your interests. If you have any constructive criticisms or suggestions, we shall be most receptive to them. In no less measure of earnestness, do we solicit your contributions for publication.

The Folio is yours—read it; support it, and better still—take an active part in it!

Polish Your Apples

Have you ever visited the fruit stall of one of the better-class markets? If so, you will recall the various wares—immaculately clean—temptingly arranged in an orderly fashion, and the apples polished to a high degree of brilliance.

If perchance you purchased some of this attractive fruit, did you actually find it superior in flavor and nutritional value? I dare say that the chief difference between your purchase and those comparable items yet in the stockroom was largely a matter of eye appeal. The apple polishing was an element of salesmanship, and the fruit vendor used it to good advantage.

But salesmanship and its close counterpart—showmanship, are not confined to commercial activities alone. On the contrary, they enter into almost every relationship we have with others, wherein an influence is exerted on someone by our personalities, our services, our merchandise, or our handiwork.

Does not this apply with equal force to photographic pictorialists as well? Aside from the pleasure of artistic self-expression, do we not strive to make pictures that will impress our friends and fellow club members, and find favor at the hands of the contest judge and salon juror? And once we come to the conscious realization that we are, in the colloquial sense, trying to "sell" our pictures to others, let us then determine to what extent we are evoking

the principles of good salesmanship or showmanship.

When dealing with a discriminating buying public, inherent quality is the first consideration. And so it is with our pictorial efforts—the more discerning our audience, the more will be expected of us and our pictures, in so far as the elements of artistic conception, composition, execution of idea, print quality, etc., are concerned.

But no matter how artistically the subject of the picture has been conceived and presented, or even how well basic print quality has been attained, the end results may still leave much to be desired, if the finer points of print finishing have been overlooked or neglected.

It is surprising how many pictorial workers are evidencing a carelessness, or an indifference to the more particular phases of craftsmanship—apparently relying on other qualities, such as subject interest, size or impact, to gain acceptance of their work. The quantity production of prints and the reliance upon broad effects undoubtedly are contributing factors in the extensive appearance of poor workmanship from all quarters.

It is a matter of considerable puzzlement why one would painstakingly search out appropriate subject matter for a picture, and carefully process the sensitized material, only to mar the finished product by leaving in the print unpardonable blemishes, bespeaking little or no attention to this important but much neglected phase of photographic craftsmanship. And regrettably, this tendency toward indifferent print finishing is not confined to the novice alone. It is encountered among the ranks of the advanced workers also, where, unfortunately, a bad practice is likewise a bad example.

It is not contended that careful or even skillful print finishing will lift a poor picture out of mediocrity into the artistry of a masterpiece. But I do maintain that proper attention to the element of print finishing will definitely improve every picture, and in some instances, spell the difference between their success and failure.

Let us not overlook this last step in the production of good pictures. In short—let us polish our apples!



DR. C. F. COCHRAN, Associate Editor

A new and exclusive photographic publication came into being recently with Volume I, Number 1, of PSA Portrait Portfolio No. 12 "Newsletter." Maurice H. Louis, of New York City, is the Commentator of Portrait Portfolio No. 12. This

four page mimeographed newsletter was so interesting I want to quote portions of it as a sort of "notebook quote."

Space forbids complete reproduction here but I will give you the highlights. Mr. Louis points out his "aims and intentions" in his introduction:

After commenting upon the portfolio and sending it on its way August 4th, I realized that it would not be returned to the tail-enders for about four months. This is a long time for impatient photographers to wait, so I decided to introduce this "Newsletter" to fill the interim. If it proves successful I will try to continue its publication between each circuit.

It is too bad that so few of the members will have read the notebook before receiving this, for if they had, they would be in a better position to understand the "aims and intentions" of their Commentator. The portfolio's main purpose is to improve the quality of our portraiture, so let us not forget or wander from this objective. I will try to fill this "Newsletter" with interesting "know-how" and suggestions . . . material borrowed from others and from my 15 years experience as a professional photographer. Some of this may seem too elemental, but please bear in mind that our group ranges from that of neophyte to that of APSA. Fifteen different viewpoints to satisfy is a large order, so please write me suggestions and material for inclusion.

You may be assured that I do not intend to convert anyone to my beliefs. If our tastes were similar, photography would be pretty dull. However, I will attempt to reform members if I honestly believe their approach or technique is wrong.

I do not like to preach, nor do I enjoy listening to preaching. However, for three and a half years, while a member of Pictorial Portfolio No. 13, I harped on one subject, and I see no reason why I should not continue to do so. In a nutshell it is:

"Don't try to make a good print from a poor negative. Instead, make a better print from a good negative!"

While certain negatives can be improved by manipulation, and in rarer instances a passable print made from a poor negative, I can assure you it just isn't worth the effort. Do your thinking before and at the time you are making your portrait!

Suggested Reading:

Fred Archer on Portraiture
Haz on Composition
Loetens on Enlarging
Adams on the Negative

Depth of Field Scale:

In portraiture your lens is working at fairly wide apertures and therefore depth of field should be an important consideration. Although you may use ground glass focusing, when stopping-down, the diminishing light often makes it impossible to see the extent of your definition. Kodak owners will find appropriate scales for their lenses in the booklet, "Kodak Lenses." While users of other lenses might be able to use these scales, I suggest they write the manufacturer for these data. It gives you a sense of added security to know, to the inch, the exact depth of your field.

The Art of Making Tests

We learn by applying the recommendations and suggestions of others to our own work, conducted under conditions peculiar to ourselves. Much is accomplished by trial and error. This entails the conducting of numerous tests and the drawing of conclusions from them. It has been my experience that many of these tests are conducted in such a manner that their conclusions are incorrect or misleading. If we wish to compare the merits of Opal B to those of Opal G, we should use the same negative to make identical prints on the two surfaces of paper, at the same time and under the same conditions. I recently tested a new lens which I had purchased, an *Hex 8½ inch, f/4.5*. Using the same pose and lighting arrangement, I exposed 12 negatives on the same type of film. Six were exposed from *f/4.5* to *f/11* and developed together, using the manufacturer's recommendations. Six were exposed by the meter reading of *1/25th* and *f/8*. However, three were developed in D-50 at varying times and three in

PSA AMERICAN PORTFOLIOS

Enrollments are now being accepted in the following specialized portfolio groups:

Pictorial
Portrait
Nature
Photo-Journalism
Control Process
Star Exhibitor
Color Print
Miniature

For information and enrollment blanks write to Eldridge R. Christliff, Room 406, 800 Davis Street, Evanston, Illinois.

D-23, also at varying times. This gave me one dozen different negatives to study and compare. While this might seem to be a lot of needless work, it is done so infrequently that it is worth the additional effort.

How's Your Housekeeping?

Photographic processing, like cooking, depends upon accuracy and cleanliness. I am continually amazed at the slovenly conditions and workmanship seen in darkrooms, both amateur and professional. We may argue whether photography is an art or not, but there is no room for debate on the fact that processing is an exact science. Don't let anyone kid you about being too fussy . . . you can't ever be! Reams can be written on this, and I am going to jot down at random what I think will benefit you in your work.

. . . Are your enamel trays kept spic and span? Negative stain can be removed easily with a tray cleaner of your own mixture. Every nick should be immediately treated with a dab of Probus or similar paint.

. . . Fine grain chemicals should be filtered upon return to their bottles. I prefer placing cotton in my funnels and not the use of filter paper. In many locations it is wise to place a filter in your water line. Both of these ideas will save you time in spotting prints.

. . . If you use more than one thermometer, do they synchronize? Cheap ones are useless; and the larger the better, preferably graduated in single degrees. The new Kodak Process Thermometer is well worth its cost of \$10.00 for it is as unbreakable as possible.

. . . Hypo is cheap so use it only while it's fresh. If you do not keep a record of its use—use a chemical test.

. . . Place the date of mixture on the label of your chemicals—and especially in the case of negative developers, record the times used. While I use a replenisher with my Microdol, I prefer to throw it down the drain after its use on 15 rolls of film.

. . . Print tones are not considered effeminate any more . . . "Life" Magazine darkrooms use them, so you can too. A photographer's mark of distinction no longer is his stained fingers, but his clean prints!

. . . You can't make an acetic acid stop bath work all night, nor will print developer remain consistent with continued use. Keep them both fresh.

The Nature Boys

Flowers are pictorial. This is hardly a startling statement. We have known it for years. To the average person a picture which is called a "Nature Print" has two strikes on it before viewing. I suppose it goes back to high school botany or some needlessly dry textbook on a nature subject. I guess I was as guilty as the next one when it came to this type of prejudgment. Then I picked up a nature portfolio.

Flowers are pictorial. Yes, and a picture

of an owl flying home with a mouse in his beak can be pictorial too. And so can an animal, moss, the leaf of a tree, and any one of the many subjects which might be considered a natural history subject. One perusal of a nature portfolio will prove these statements.

My own interest in photography is pictorial. I am interested in a picture from the standpoint of the picture. The subject of a picture is to me more or less secondary, but what is *done* with the subject is the prime consideration. I expected in a nature portfolio some nice, well-executed photographs of natural history subjects handled in a quiet, dull, textbookish manner. The truth is that the nature portfolio is as exciting and pictorial as some of the pictorial portfolios; and better than several which I have seen. Shows how wrong one can be.

About the only difference between the nature and the pictorial was the community of interest the members had in the limitation of the subject matter. The criticisms ran as much to composition and print quality as they did to scientific comment.

Interested? If your interest runs toward nature, you would get a big bang out of membership in a PSA Nature Portfolio. Think it over!

Portfolio Medal Award

The 13th Rochester International produced the PSA Portfolio Medal Award winner this month. The recipient of the Award is George West, 2840 Mackin Road, Flint, Michigan, and his winning print was "The Sleepy Song," which had travelled in PSA Pictorial Portfolio No. 15 in 1946.

The idea for the picture occurred to Mr. West one evening after having told his small son a bedtime story and put him to bed. Coming back into the living room Mr. West noticed his son's shoes lying on the table next to a story book. Gold is where you find it—and here was the making of a picture. He thumbed through the book for a likely page to include in a picture, and found Josephine Daskon Bacon's "The Sleepy Song." He didn't look any further.

After arranging the elements for his picture, he illuminated them with one #1 photoflood and used two rolls of corrugated paper, standing on end for control screens.

If you have not tried for the PSA Portfolio Medal Award, there is no time like the present. If you have never had a print hung in a recognized salon, it should be a simple matter to win one of these handsome medals. All you need to do is have a print accepted in one of the many recognized salons; and if this print is your first, and if it has travelled or is travelling in one of the PSA Pictorial Portfolios at the time of submission, you are entitled to a medal. Send your request and information to Mr. Christliff. Remember that winning one of these medals entitles you to compete for the Booth Tarkington Award.

Roster Recap

"How does it happen I didn't get my name in *The Folio* when I joined a portfolio?"

Some who have been fitted in as replacements in the older circles, did not get their name in the JOURNAL, owing to the fact that their rosters had been previously published. With the passage of the several years since Pictorial Portfolio No. 1 started out on its first circuit, a great many things have happened. The membership of the first circle appeared in the JOURNAL, and as the membership of each new portfolio was filled, its roster was published also.

Time has wrought many changes. For one reason or another, some of the old members have dropped out, and replacements have been made. For this reason, it has been decided to recapitulate the membership of the portfolios, starting with Pictorial No. 1. Henceforth, *The Folio* will publish the new circles, as they are inaugurated; and from time to time, restate the current membership of the older groups.

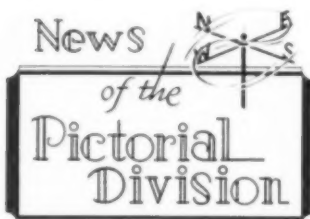
Here are the historic first two:

PSA Pictorial Portfolio No. 1 (Revised)

Harry K. Shigeta, FPSA, Commentator
Rich D. Birge, Sec'y., North Platte, Neb.
John R. Rippey, Omaha, Neb.
Jane Bell Edwards, Chicago, Ill.
Dr. Neal K. Nelson, Owatonna, Minn.
Ray Loomis, Casper, Wyoming
Barney DeVietri, Price, Utah
Lloyd E. Smith, San Francisco, Calif.
Paul E. Castle, Santa Barbara, Calif.
Mrs. Laura C. Tuteur, Sonland, Calif.
E. F. Lee, Jr., Russell, New Mexico
James F. Rittenberry, Amarillo, Texas
Dana E. Kepner, Denver, Colo.
J. C. Turney, Independence, Mo.
Clarence G. Einhaus, Quincy, Ill.
Ralph E. Lewis, Jr., Jackson, Mich.

PSA Pictorial Portfolio No. 2 (Revised)

F. H. Gelman, FPSA, Commentator
C. R. Frey, Secretary, Lincoln, Neb.
Edith M. Rynky, Sioux City, Iowa
Ray Miss, Milwaukee, Wis.
Leonard Schaden, Grand Haven, Mich.
Clare Kornick, Detroit, Mich.
Robert J. Rowley, Philadelphia, Penna.
Roy Hirsburg, APSA, Richmond, Indiana
George Perry Davis, Bloomington, Ill.
Cliff Edson, APSA, Columbia, Mo.
Mortland Herring, Waxahatchie, Texas
H. D. Ohm, APSA, San Antonio, Texas
Alice Carey Slobing, Lakewood, Colo.
Harold Carpenter, Sandy, Utah
Arthur Stensrud, North Platte, Neb.



The Pictorial Division regrettably announces the resignation of Ralph A. Ross of St. Louis, Missouri, as Director of the International Portfolios, effective January 1, 1950. Ralph has been forced to relinquish this post owing to the pressure of business.

PORTRAIT CRITICISMS

Have you a portrait that looks good to you, yet fails to click? Have you made a portrait you would like to have analyzed by one of the experts? Here is your opportunity to check your work, learn its faults, and to know what corrections are in order.

Send one of your portraits—8 x 10, unmounted—to Paul J. Wolfe, Director of the Pictorial Division Portrait Section, P. O. Box 332, Butler, Pennsylvania. A Pictorial Division member, prominent in portraiture, will make a written criticism of your print. When space permits, portraits and the commentaries will be published in *The Folio*. No prints will be returned. However, be sure your name and address appears on the reverse side, so that you may receive a copy of the comments and analyses.

This service is open to all members of the Pictorial Division without charge.

Miss Jane J. Shaffer, APSA, of St. Louis, Missouri has been named as the new Director of this activity, and will assume the functions of this position the first of the year.

Award of Merit

It is with a great deal of regret that the Pictorial Division announces the resignation of Harry V. Clery, Jr., of Philadelphia as Director of the Award of Merit, effective September 15, 1949. Harry's resignation is due to the pressure of work and the increase in the amount of travelling he will have on company business.

Warren W. Lewis, 2055 North Sedgwick Street, Chicago 14, Illinois, has been appointed the new Director of the Award of Merit. All applications should now be sent directly to Mr. Lewis.

The Pictorial Division is pleased to announce that Award of Merit Certificates have recently been received by the following members:

New One-Star Exhibitors:

Harold M. Biggs
J. M. Endres
Fayette G. Hall
Russell B. Stewart
J. M. Watkins

New Two-Star Exhibitors:

Eugenia Buxton
Jorge Figueroa
Karl F. Kunkel
G. Thomas

New Three-Star Exhibitor:

Jose Otavica Filho

Rating Advanced From One-Star to Two-Star:

Howard E. Foote
P. J. Ziegler

Rating Advanced From Two-Star to Three-Star:

Frank J. Heller

Coming Salons Agreeing to Follow PSA Recommendations

NOTE: M—monochrome, C—color prints, T—color transparencies.

Des Moines (M) Exhibited Jan. 1-28 at Des Moines Camera Club, Des Moines, Iowa.
Springfield (M) Exhibited Jan. 3-22 at Geo. Walter Vincent South Art Museum, Springfield 5, Mass.
Mississippi Valley (M, C, T) Exhibited at Stix, Baer and Fuller, M & C Jan. 9 to 21; T Jan. 4, 9 and 16. St. Louis, Mo.
Detroit (M, T) Exhibited Jan. 22-Feb. 12 at Detroit Institute of Arts, Detroit, Mich.
Wilmington (M, C) Closes Jan. 11. Exhibited Feb. 5-27. Data: Geo. M. Hawk, 208 W. 35th St., Wilmington, Del.
Western Canadian (M, C) Closes Jan. 21. Exhibited Feb. 18 to Mar. 2 at Art Gallery, Winnipeg Civic Auditorium. Data: Edward Matthews, 363 McMillan Ave., Winnipeg, Manitoba.
Rochester (M, C) in Pictorial, Nature, Press and Documentary, also T. Closes Feb. 10. Exhibited Mar. 3 to Apr. 2 at Memorial Art Gallery. Data: David F. Adams, Memorial Art Gallery, Rochester 7, N. Y.
Philadelphia M closes Feb. 13. T on Feb. 6. Exhibited Mar. 4-26 at Free Library of Philadelphia. Data: Chantry W. Davis, Secy., 346 Penn. Sheraton Hotel, 39th and Chestnut Sts., Philadelphia 1, Pa.
Montreal (M) Closes Feb. 13. Exhibited Mar. 10 to Apr. 2. Data from Miss E. Lawson, Apt. 7, 188 Oliver Ave., Westmount, Montreal, Ont., Canada.
Great Falls (M) Closes Feb. 15. Exhibited Mar. 4-12 at Great Falls Public Library. Data: Miss Elvira Cahalan, Box 1997, Great Falls, Mont.
Boston (M) Closes Feb. 19. Exhibited Mar. 19-26 at the Boston Camera Club. Data: Richard C. Cartwright, 87 Washington St., Milton 36, Mass.
Pittsburgh M closes Feb. 22. T Mar. 1. Exhibited Mar. 17 to Apr. 16 at Carnegie Art Gallery. Data: Karl S. Leach, Secy., 92 Estelle Ave., Pittsburgh 11, Pa.
Kalamazoo (M) Closes Feb. 27. Exhibited Mar. 12-26 at Art Center. Data: James D. Baldo, Jr., 119 N. Rose St., Kalamazoo 12, Mich.



By LOUISE BROMAN JANSON, APSA
6252 S. Kedzie Ave., Chicago 29, Ill.

Globe-trotters

Although plants are considered as stationary forms of life they are among the most renowned travelers. Many have circled the globe and journeyed from one polar region to the other. They fly, parachute, glide, hitch-hike, and float.

Many of these travelers are air-minded and the hazy atmosphere of autumn is filled with winged wayfarers. Tossed high into the sky by roving breezes, they alight at distant destinations only to be picked up by other air currents and borne on again. Gossamer and ethereal, these sky-riders are very effective photographic subjects.

A familiar picture in nature exhibitions is the newly opened milkweed pod releasing scores of silken seeds and the head of the pasture thistle dispersing its shimmering aereois. Not so frequently photographed are the twisted feathery wings of the wild clematis. Interesting, too, are the fluff-covered seeds of the poplar and willow

trees and the gliders of the dandelions which are tossed to the four winds before spring steps aside for summer. Other seeds employing this same type of high mobility are those of the lettuce, dogbane, cat tail, salsify, and many of the composites. In photographing these dainty travelers, back-lighting should be used to emphasize texture.

Sometimes wings that are somewhat membranous are supplied to the scatterlings. These are seen in the fruit of the ash, maple, birch, elm, and some of the grasses. The seeds of the catalpa tree are flat and fringed on the edges thus they are easily carried by the wind.

There are numerous mechanical devices by which seeds are thrown from the pods with such violence that they are propelled for surprising distances. This may not seem far in one season, but the effect is important when continued year after year. Various mechanisms are employed in explosive fruits but most of them involve the sudden release of pressure great enough to break up the fruit and send the seeds flying in many directions. Illustrations of this method of dispersal are the touch-me-not, witch hazel, pea, wild geranium, and lupine.

Burrs, hooks, and spines are devices designed to enable some seeds to hitch-hike by clinging to clothing, fur, and hair. Some of these unwanted riders are the bur-marigold, cockle-bur, burdock, devil's anchors, beggar's ticks, and stick-tights.

Animals and birds help to distribute plants in other ways. Fleshy fruits which are eaten by them may be carried for long distances. The seeds in such fruits are usually protected by a pit or seed coat so that they resist the destructive action of the animal's digestive system. Some sticky fruits and berries scatter their seeds by adhering to the beaks and feet of birds and dropping off during the course of their travels by air. Nuts are the particular delight of many rodents. Trees and shrubs bearing such fruit depend to a large extent upon these animals for distribution. Man affects the movement of plants over great distances in a manner such as no other agent of migration can produce.

In some plants the entire upper portion of the plant contributes to its mobility. Tumbleweeds are included in this group. When its seeds are ripe this bushy plant breaks away from its root and goes rolling across open fields and waysides dispersing its seeds. In addition to its own it collects many other seeds and fruits in its fine branches sowing them as it tumbles along.

Many seeds are lighter than water and float long distances. Thus oceans, lakes, and streams carry countless of these tiny voyagers. Eventually, most of them absorb water and sink, so there is a limit to the time and distance they can be transported in this manner and still germinate.

The variety of ways by which seeds and fruits traverse the face of the earth is so great that there may be methods that have not yet been closely observed and fully described. Thus, the nature photographer may record some special means that is yet unknown.



By KARL A. BAUMGAERTEL, APSA
353-31st Ave., San Francisco 21, Calif.

The Flexichrome Process

In line with the Color Division's policy of keeping abreast of all developments in the field of color photography, our testing section under the able supervision of W. K. Rayworthy is examining the Kodak Flexichrome Process and has issued a preliminary report. As this is far too long to allow its publication here, we are giving a "digest," partly in direct quotations and partly in your editor's interpretation. Color Division members wanting further information or in need of help can secure it by writing to Rayworthy at 2741 S. 59th Avenue, Cicero 50, Illinois. There is no charge for this service. The purpose of this investigation is to determine the merits of the process and to evaluate the technique, and is conducted as a service to members of the Color Division.

Familiarity with the process and technique was established through actual use in accordance with the manufacturer's published instructions. Processing chemicals were examined and estimates made as to their possible composition and function. In cases of doubt, chemical analyses were made to determine the facts. In short, the process was examined in such a way as to allow a reasonably accurate appraisal of the technique and materials.

The Kodak Flexichrome Process is not new. It was first marketed about ten years ago under the name of "Flexichrome," but apparently never achieved great popularity in its original form. Essentially it is a combination of photographic and hand-manipulated processes. It differs from other hand coloring in the use of a positive gelatin relief image. It also requires the use of a darkroom with its attendant equipment and a certain amount of technical skill in handling photographic processes. It is certainly not fitted to the needs of the colorist who is satisfied to have his prints made commercially and then merely applies color.

In its original form the process consisted of twenty steps requiring about two hours processing time before the picture was ready for the application of color. In its present form considerable simplification has been introduced and the processing time greatly shortened. Even greater control has been provided. Any color scheme can be employed. Once applied any desired change in color can be made by subsequent applications of color to replace that previously applied. Great control of contrast is provided.

The necessary chemicals are provided in package form. One considerable improvement in the developer was noted. Former solutions had a tendency to support a fungus growth. This tendency has been eliminated by the apparent addition of a fungicide. The greatest trouble had was in

securing the necessary materials. This situation will undoubtedly have been cleared up by the time this is published.

The question has already been brought up as to whether or not prints made by this process will be acceptable in print exhibitions. This matter will have to be decided by those conducting these shows. As far as the Color Division's own print activities are concerned, such prints will be eligible for submission.

When the final report is received additional information will be published in this column.

Slide Instruction Sets

Since the introduction of our first slide instruction set, its popularity has been so great that a second set was found necessary. Increasing interest in slide making and the desire of many in improving their output now makes it necessary for us to complete at least three or four more of these sets as soon as possible.

In the past the slides used have been the work of a limited number of workers. With the immediate need of at least 250 slides for new sets we can hardly expect only a few of our members to make any such number of slides, and we therefore find it necessary to appeal to our readers for help.

What we would like to have you do is to make at least two slides, more if you want as they will be very welcome, one slide showing an obviously incorrect method and the other showing the right way of photographing the subject. They can be of any subject as the more we get the more variety we can give our sets and the greater their value.

Other than to acknowledge their receipt and to express our thanks in this column, we can not pay for these slides. Probably not all will be suitable but all will be given consideration. No slides will be returned. Your greatest satisfaction will be in knowing that you have done something towards helping less able workers in your own field of photography. If you have such slides available now, send them in. If not, why not make a pair of "right and wrong" slides on your next roll and forward them to your Chairman, Karl A. Baumgaertel at 353-31st Avenue, San Francisco 21, Calif.? They need not be mounted in glass as we will do that.

One Thousand Watts

Just because your new automobile will do a hundred miles an hour is no reason why you should try to cruise around at that speed, and likewise because your new projector will take a one thousand watt lamp is no reason why you should use it.

Too much light is just as bad as not enough. Too much light tends to make your colors "wash out" and is quite tiring on the eyes. Along with the excess of light you get a great deal more heat which often causes your glass-mounted slides to "sweat" (temporary darkening while being projected) and in some instances has proven destructive to transparencies even when mounted in glass.

Even though at least one manufacturer is so inconsistent as to ship his projector equipped with a one thousand watt lamp when he does not recommend its use except where absolutely necessary, which is almost never, most dealers when selling projectors will make some substitution with little or no loss to the buyer. Such adjustments usually consist of replacing the one lamp with two of a lower wattage with an additional payment only being necessary where the price of the two lamps exceeds that of the one. As an extra lamp should always be kept on hand, this will not work any hardship on the buyer. For home use the smallest wattage lamp the projector will take is usually sufficient, and for camera club use the five hundred watt lamp is often most satisfactory. Where much more light is needed and the projector is used a great deal, it is usually better to buy a faster projection lens than it is to buy the higher wattage lamps, as the price of these lamps increases greatly with the increase in wattage and the tendency to burn out also seems to increase.

Hawaii, U.S.A.

We have often thought that if we were to conduct a school for photographic exhibition management one of the subjects required would be geography. With that in mind it is with pleasure that we print the following appeal received from the Hawaii Color Pictorialists of Honolulu. We quote:

"Could you do this for the Pictorialists: write in your column in *PSA JOURNAL* that Hawaii is a part of the United States and that we are anticipating becoming the 49th state of the Union. So please do not include Hawaii in the foreign listings in exhibition catalogs."

The same applies to Alaska, Porto Rico, the Virgin Islands, Guam and American Samoa. The Canal Zone is doubtful as we only rent the place and the islands covered by mandate can be considered as foreign. For the benefit of at least one monochrome exhibition it might be well to add that the State of New Mexico is also part of the United States.

Coming Color Exhibitions

5th Chicago Nature, at Chicago Natural History Museum, Feb. 1-18. Deadline Jan. 16. Four slides or color prints. \$1. Forms: Blanche Kolarik, 1824 S. Central Park Ave., Chicago 23, Ill.

Philadelphia, Mar. 4-10. Deadline Feb. 6. Four slides. \$1. Forms from Chantry W. Davis, 446 Penn. Sheraton Hotel, 30th & Chestnut St., Philadelphia 1, Pa.

Rochester, at Rochester Memorial Art Gallery, Mar. 3-25. Deadline Feb. 10. Four slides in color prints. \$1. Forms from David F. Adams, Memorial Art Gallery, Rochester 1, N. Y.

El Camino, April 23-May 6. Deadline Apr. 8. Four slides. \$1. Forms: Elford L. Norgard, 208 S. Lake St., Los Angeles 4, Calif.

Southgate, England, April 17-20. Four slides. \$1. Deadline March 11. Forms from W. J. Lublin, 2 Dennis Parade, Southgate, N. 14, England.

The front page of the "National Press Photographer," which will go to all members of the PSA Photo-Journalism Division.

Photo-Journalism

By CLIFTON C. EDMOND, APSA

18 Walter Williams Hall, Columbia, Mo.

EXTRA! EXTRA!

Your executive committee, through the courtesy of Joseph Costa, APSA, and the National Press Photographers Association, has arranged to provide each member of the P-J Division with a monthly copy of *National Press Photographer*, NPPA's official publication. The arrangement, effective in January, is a happy one for all concerned. We will learn at first hand of the progressive NPPA program—will learn how, by word and deed, we can correlate our efforts with theirs for the advancement of Photo-Journalism. Watch for your first and succeeding copies of *National Press Photographer*. You'll really enjoy it!

If you are not a member of the PSA Photo-Journalism Division and would like to receive a monthly copy of this fine magazine devoted to press photography, the subscription price of which is \$3.50 per year, send your name, address and \$1.00 divisional dues to the Photo-Journalism Division, PSA, 2005 Walnut St., Philadelphia 3, Penna.

Law of Press Photography, "the first

study to stress the rights of the photographers" rather than what law prohibits, is the new book written by Alfred A. Crowell, School of Journalism, Kent State University. The book, issued by Educational Publishers Inc., 122 North Seventh St., St. Louis, is priced at \$1.50.

The National Press Photographers Association, Inc., has produced a news photo short course manual "to provide advanced professional training for news photographers." The manual was prepared by NPPA's Educational Committee, composed of William Eckenberg, N. Y. *Times*; Gordon Kuster, Columbus, O., *Dispatch*; J. Winton Lemen, Don Mohler, Bob Garland (technical associates); Truman Pouncey, University of Houston and William Taylor, Kent State University.

Kent State University (Ohio) offers a free copy of the Annual Digest, 1949 short course in photography, to any photographer writing for it. Here's a valuable publication—one of interest to members of PSA's Photo-Journalism Division.

The picture-minded N. Y. *Daily Mirror* this summer celebrated its silver anniversary. First issue appeared June 24, 1924. John Reidy, a member of the *Mirror* staff at its inception, is chief photographer. The *Mirror*, which has had many scoops in its 25-year history, now employs 20 cameramen and seven laboratory workers.

Nine Decades of Oil is the interesting

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Vol. 6 No. 1 DECEMBER 1950

IN SHARP FOCUS

Operation "Shooting Gun"

Operation "Shooting Gun" was the name given to the first of a series of photo-journalistic assignments in the New York City area. The assignment was given to a group of photographers by the New York City Police Department. The assignment was to photograph the activities of the "Shooting Gun" gang, which was active in the area. The photographers were given a list of names and addresses of the members of the gang. The photographers were to go to the addresses and photograph the members of the gang. The photographers were to be careful not to be seen by the members of the gang. The photographers were to be careful not to be seen by the members of the gang.

Cancelled Out by Mumps

The mumps epidemic in New York City has cancelled out a number of photo-journalistic assignments. The assignments were cancelled because the photographers were not allowed to go to the addresses of the members of the gang. The assignments were cancelled because the photographers were not allowed to go to the addresses of the members of the gang. The assignments were cancelled because the photographers were not allowed to go to the addresses of the members of the gang.

Delayed Action

The action in the photo-journalistic assignments has been delayed because of the mumps epidemic. The action has been delayed because of the mumps epidemic. The action has been delayed because of the mumps epidemic. The action has been delayed because of the mumps epidemic. The action has been delayed because of the mumps epidemic.

Embuzzer Ends Home In Newsreels' Midst

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Heavy Agenda Faces Delegates To Fourth Annual NPPA Meeting

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Newsreels Give BSA an "Oscar"



Newsreels Give BSA an "Oscar". The photo shows a group of people, including a man in a suit and a woman in a dress, standing together. The man is holding a trophy or award. They appear to be at a formal event or ceremony.

pictorial brochure prepared by Esso Standard Oil Company, 15 West 51st St., New York, N. Y. The little booklet begins with the period 1859-1869, and through photographs, drawings, woodcuts, halftones, etc., highlights the progress of history through to the present.

St. Louis on Parade in Pictures—1840-1940 is the splendid feature now running in the *St. Louis Globe-Democrat*. Emil Boehl, who came to this country prior to the war between the states, made most of the many fine early day pictures. The prints are credited to the Scottish Rite Library.

Mathew Brady enthusiasts were thrilled with the recent discovery of 44 negatives credited to this famous "first combat photographer." The negatives, wrapped in Washington, D. C., newspapers dated 1866, were in excellent condition. The priceless find was made by George L. Andrews in his Oswego, N. Y., barn loft. The negatives were purchased by Ansco.

J. S. Mertle, FPSA, Cincinnati, recently made the rotogravure section of the Louisville *Courier-Journal* in an interesting pictorial feature, "The Birth of Roto." Mr. Mertle, a noted graphic arts expert, has acquired the world's first piece of gravure printing and the exceedingly rare papers which belonged to Karl Klietsch, gravure inventor. Adding intrigue to the story is the mysterious way in which Mertle penetrated the iron curtain to procure the Klietsch collection from Prof. Karl Albert, of Vienna. Mertle, a Fellow of the PSA and of the Royal, has been a student of the graphic arts nearly 40 years. Beginning as a photo-engraving apprentice in Oshkosh, Wis., at the age of 13, he now edits six technical journals, is technical director of many business firms, and a member of Philadelphia's Franklin Institute.



By H. J. JOHNSON, APSA
1614 West Adams, Chicago 12, Ill.

Camera Club Dues

Dues in most camera clubs are too cheap, with the result that many clubs must sacrifice self-respect by begging or black-mailing programs and prizes. Camera clubs are not charity organizations and members should realize that there is nothing in the nature of photography which entitles them to free rent, free programs, commercially donated prizes, etc.

Actually, since photography is not exactly inexpensive, and a large proportion of its devotees are above the lower income brackets, a camera club should be expected to pay its own way from its own income. That income is from dues, and these should be high enough to cover all legitimate expenses.

Too many clubs make the mistake of keeping dues below subsistence levels in order to increase the size of membership. Result: too high a proportion of "some-

thing for nothing" members; too low a proportion of quality of members to quantity.

Not only do clubs make a mistake in dues too low, but also in not dropping from membership those who do not pay their dues within a reasonable time after expiration. Two months is a reasonable time, with three months the absolute maximum. (Even though it may be fewer in numbers, a club will be stronger if it eliminates its borderline membership.)

It is not difficult to establish what dues should be. Chiric expenses are programs, prizes, rent, equipment, and bulletins.

In the course of a year, various types of program material will be used. For a club meeting monthly, ten or twelve programs must be planned. One or two of these might be from manufacturers' representatives demonstrating equipment or processes. One or two might be canned lectures from Eastman, Ansco, etc. These two types of material are obtained without cost because they are standard services provided by manufacturers as part of their advertising or sales budgets.

One or two programs might be from the PSA or from a local camera club's association and consist of print or slide shows organized as instruction programs. The cost is usually low.

Then there should be two or three programs from among the membership, with no cost to the club.

That leaves several meetings for which outside speakers or judges are necessary. These will cost a minimum of \$3 each for transportation and dinner, or \$5 minimum if on a fee basis. (In no case should an outsider be expected to consider the club as an object of charity.)

After outlining your programs, you will find that perhaps four or five speakers from outside are necessary, at a cost of \$15-\$25. There is the starting point for the budget. (Use the higher figure.)

Part of the budget may represent rent. If you meet at members' homes (perfectly good system for clubs with fewer than 20 members) there will be no cost here. Many clubs have dinner meetings, with the restaurant providing the meeting room as part of the arrangement and at no cost. Industrial clubs pay no rent; YMCA's, community centers, etc., provide meeting places where a camera club is considered a community affair. In short, most clubs do not need to pay rent. Wherever rent is necessary, the amount should be included in the budget.

Tangible recognition of members' photographic abilities requires prizes of some sort, on an individual contest basis, a cumulative basis, or a combination of both. In no case should dealers be solicited to provide merchandise as such prizes. This is a form of blackmail which cannot be rationalized in any way.

Knowing the number of ribbons, medals, or trophies to be awarded during the year, the cost should be included in the budget.

If the club has 50 or more members, there should be a budget for a club bulletin.

Finally there is the cost of equipment

and upkeep. Many of the smaller clubs borrow from members and though this is awkward, it is satisfactory. Most clubs need an easel, light box, projector, screen, etc. Determine what is needed as minimum, prorate the cost across several years, and include in the budget.

Add all the above items together, divide by the number of members, and you have a pretty good idea of how much dues per member should be. Add 10% to this figure, round out to an even sum, and set this as the preliminary figure to be revised after a year's trial.

Dues will increase with number of meetings, with more ambitious programs, etc. But such changes should first be approved by the membership before translating into dues.

Few clubs have a treasury surplus to worry about. No club should have a surplus or reserve more than necessary to carry the club several months. Any accumulation greater than this represents services and benefits which members have paid for and not received.)

Club Circuits Being Transferred

Last season we originated "club print circuits" in which each of eight clubs enters three prints and then receives the set of 24 prints, complete with criticisms, for an instruction program. At the end of the circuit, the club receives its prints back, along with nine sets of criticisms.

Four such circuits were assembled, composed of 36 clubs. The circuits worked smoothly, were self-supporting, and were considered by participating clubs as valuable additions to their programs.

Since the circuits have been "proved in" as valuable program assets, they are now being transferred to the Pictorial Division in accordance with the policy of the Camera Clubs Committee to develop new club services and then transfer them to the respective Divisions for continued operation.

A new series of circuits will be started in each of the following months: November, January, February, and March. For instruction value and for program variety, your club should fit one or more of these circuit sets into its schedule.

The sets will be under the general supervision of A. C. Klein, with details and forms available from Edward F. Casper, 1317-19 N. 12th St., Milwaukee 5, Wis.

Club Notes

Westmoreland club (Greensburg, Pa.) makes each committee chairman a member of one or more related committees in order to integrate the executive work of the club. Also make the committee group large enough to cover all phases of club opinion and keep discussions of club policy out of regular meetings. Note that last part! Could your club adopt it with profit?

Flint Lensmen (Mich.) invite any PSAs visiting or passing through Flint, Mich., to stop in for one of their meetings any Thursday at the YMCA on E. First St. Ask for Miss Mead and introduce yourself; you'll be given a cordial welcome. Could your club help make this a reciprocal arrangement?

South and Southwest

By C. L. HEROLD

3601 Tanglewood Rd., Houston 5, Texas

Louisiana darkrooms are being worked overtime these nights in preparation for a big event. It is the First Louisiana Amateur Photographers' Salon and Competition, scheduled for January 1950 in Baton Rouge, under the sponsorship of the Louisiana Art Commission. Only residents of Louisiana are eligible to submit prints which will be judged by a five-man jury, consisting of Wood (Pops) Whitesell, FPSA, Lee Webb, and Caroline Duricaux, all of New Orleans, Elmo Morgan Morgan of Baton Rouge, and an as-yet-unnamed member of the Press Photographers' Association. It is interesting to note that the print size is limited to a maximum of 11 x 14 inches. (Thanks to Carey Carpenter of Baton Rouge, and to Miss Lucille Bostick of New Orleans for their help on this item.)

Congratulations to J. M. Enders of the Jackson (Miss.) Photographic Society, Frank J. Heller of the Bartlesville (Okla.) CC, and George R. Moon, Jr., of the Port Arthur (Texas) CC, and to their respective clubs, on having winning prints in *The Camera's* 1949 Print of the Year Contest. The following should also stand up and take a bow for being among the elite group of winners in *American Photography's* 29th Annual Competition: Miss Ruth Canaday of Tulsa, Mrs. Grace de la Croix Daigre of Plaquemine, La., and John Huber of Austin, Texas.

Here's an interesting wrinkle in club bulletins, as noted in Memphis' Mid-South CC *Shutterbug News*: Regular editor E. Porter picks on a member of the club to be guest editorialist for one issue, giving him free rein, and a full legal-size column to reign in.

Another successful Annual Exhibition has been concluded by the Orleans CC, in which 114 prints by 13 members were hung in the Delgado Museum of Art, New Orleans. The jury of selection was Eugene A. Delcroix, Knute Heldner, and B. F. Leeper. In the awards department, P. B. Lusk walked off with the sweepstakes for his "Moss Land Maiden." The OCC put out a handsome 20-page catalog on "slick" paper, and reproduced seven prints to almost full page size. New Orleans is visited by many PSAs all through the year, and it might be well to mention that the OCC meets on the second and fourth Tuesday evenings of each month. Meetings are held in the Presbytere Building, 715 Chartres Street, in the famed French Quarter, or Vieux Carre, of this interesting city.

The Houston CC recently spent an evening on a "Darkroom Tour"—which was a tremendous success. It started with a visit to Handly's Bromoil Emporium (Prop., Dr. L. L. H., APSA), and it is a

pleasure to report that no one fell down those booby-trap stairs leading up to this spacious affair located over Doc's garage. Next on the tour was a stop at Jim Mayor's brand new darkroom, which is almost impossible to describe, what with everything brand new, latest equipment, etc. Anyway, it can be said that Jim's place is "out of this world," and many a professional would give an arm to be able to have his name on the door. Oh yes, it's completely air-conditioned, no less! The tourists wound up the evening in Frank Earle's so-called "one-car" darkroom. This is really a model of efficient use of very limited space in his garage; it shows the results of careful design and planning. Limited though the space was at Frank's, there was room for everyone to partake of liquid refreshments of sundry types. (Lest the above be misinterpreted, Houston actually has more than three darkrooms to its credit!)

Woods (Pops) Whitesell, FPSA, of New Orleans made a trip up to Chicago, and returned home with the following: (1) the honor of hanging a one-man-show of his prints at the Photographers' Association of America convention, (2) the degree of Honorary Master of Photography, awarded by the PA of A, and (3) a host of new friends made in the Windy City. Not a bad haul for one short trip, Pops!

The second Annual Magic Empire Color Slide Exhibit, sponsored by the Tulsa CC, was held in November at the Philbrook Art Center. Norman Brice of Clayton, Mo., Paul K. Pratter, St. Louis, and Frank J. Heller of Bartlesville, Okla., made up the jury of selection. Joe E. Kennedy of the TCC headed up the Exhibition Committee.

Another Annual Exhibition in the Territory has been instituted—this one by the up-and-coming Shell Oil Company CC, Deer Park, Texas. This exhibition is being hung in one of the downtown Houston photo stores through the courtesy of Carroll Jacobs, and prints were selected by Dr. L. L. Handly, APSA, Forrest F. Adrian, and your editor. The membership of the club is drawn from employees of the Shell Oil Company, Inc., refinery and Shell Chemical Company plants, located about 20 miles east of Houston. It is an active club, and has a list of programs and field trips to its credit which would make many a larger club blush.

The list of process workers in this country has been enlarged by two new converts. One, Dr. L. W. Jackson, the San Antonio Photographic Society color printing expert, has all but forsaken the latter for bromoil. (Note to Dr. Jackson's neighbors: That tapping noise you hear next door is not a Geiger counter, it is only the sound of brush, ink, and paper meeting to add a little "color," where perhaps there wasn't any to begin with.) And that successful exhibitor from San Antonio, Fred Schmidt, is now turning out some of his work in

palladium. It doesn't take a detective to locate the source of all this. Judge for yourself—Herb Ohm, APSA, and ex-editor of this column, is one of the leading process men in the country, and is also a leading light in the San Antonio PS!

Before returning to his home in Paris, France, following a summer spent in teaching at the Winona School of Photography (Indiana), PSAer Maurice Tabard made a return visit to Houston as the guest of Paul Linwood Gittings, FPSA. This interesting French photographer renewed the many friendships he made in Houston a year ago. His visit coincided with the presence of the PSA Three- and Four-Star Exhibitors' Show, and the Houston CC had the rare treat of Tabard's comments and criticisms on this select group of prints. The latter, it will be recalled, were assembled by invitation for the Photographers' Association of America.

psa

Canada

By Blossom Caron, APSA

Are you up in the air? Well this autumn the Toronto CC was. Oh no, we don't mean the members were excited or upset, but they were up in the air, way up. They arranged an outing by plane! First they toured Malton Airport with DC-3s and North Stars on the tarmac to be photographed and for those who prefer human interest, handsome pilots and photogenic stewardesses. Then as though that wasn't enough fun they planned to go aloft and get shots of Niagara Falls, the Welland Canal, and the Toronto Exhibition Grounds. We trust the weather was fine and that the outing lived "up" to expectations. Wouldn't that be enough excitement for a while; not for Toronto CC. They took to the water too. They sailed with the Royal Canadian Yacht Club during the Exhibition sailing races. Seas were very heavy and some exciting pictures must have resulted—that is unless everyone was too busy hanging on!

Other clubs across the country have been taking advantage of the benefits and fun of expeditions. Northwest Ontario CC opened the season with a corn roast and St. Catharines had outdoor plans too, just to mention a couple.

Prizes, cups, ribbons and awards galore have recently been tumbling into the laps of competitors. Outstanding however is Alice Stark, an active PSA member and a motivating factor behind the organizing of the Color Photographic Association of Canada. Her color pictures won the first and second prizes and two honourable mentions in the annual contest put on by the Chicago Zoological Society and the Chicago Nature CC. Added to all this honor she won first place and gold medal at the California State Fair Art Show. Also upholding Canadian honor in California (and just about everywhere else too) is the Toronto CC's Lew Trapp who won a monetary prize and a bronze medal at the Sacramento State Fair Color Slide Ex-

hibition. Also from Toronto are Wilmot Blackhall and Ronald Sorley grand prize winners in the Toronto *Daily Star* contest, and Alf Anderson whose picture of Toronto's skyline won him \$25.00. From Montreal we have Jim Campbell who was an award winner in *The Camera's* Print of the Year competition.

Know much about Flexichrome? Evelyn Andrus of Toronto CC does. After attending the convention of the Photographers' Association of America in Chicago, she went on to Des Moines to study about Kodak's new process of Flexichrome.

Fall issues of bulletins positively bristle with news of committees new and old. Something a little out of the ordinary is New Westminster's Sick and Visiting Committee—rather a nice idea isn't it? Toronto CC now has a Speakers Committee whose job it is to list those members who are willing, and what is more, able to address meetings. We are sure nearby clubs will avail themselves of this service. On the receiving end Toronto is to have the pleasure of a talk by Arthur Underwood, FPSA, a frequent and very welcome visitor to Canada.

Talking of lectures, Sam Vogan, APSA, of Toronto, lately has been spreading the gospel of photography to the tune of 20 lectures within the last 18 months. That is pretty wonderful, and we hear he has acquired the newest equipment for showing his color slides. One of the many pleasures of being your columnist is receiving Sam's "ditto letters." These are duplicated from longhand and are long and interesting accounts of his photographic trips, what's doing in color around Toronto, references to his second hobby which is gardening, reports on shows, comments on judging systems and well, just anything that is on his mind. Perhaps he will spare me a copy even after my term as reporter has finished.

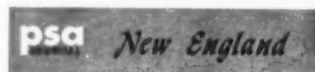
We hear that the Ottawa CC is organizing an All-Ontario Exchange Salon. Those taking part are Belleville, Brantford, London, North Bay, Oshawa and St. Catharines.

The Montreal Amateur Photographers' Club hopes to keep up its good work this season among underprivileged boys. So often we take a selfish attitude towards our hobby; keep up the good work MAPC and good luck with your club exhibition at Eaton's store.

Northwest Ontario CC too holds an autumn exhibition of members' work. This year, yours truly is to have the honor of selecting the ten best prints and the print of the year.

Unlike the babbling brook everything draws to a close and we regret to say that this last paragraph must be devoted to saying goodbye to our readers. For four years we have met the deadline and tried to form some sort of link between the PSA and its members scattered across this wide Dominion. There have been ups and downs; times when there was too much to include in the column; weeks when news was scarce. Where errors or omissions have caused hurt feelings we apologize and hope that in some measure we have served a purpose. We hope you will give our suc-

cessor, whoever he or she may be, your continued support and remember that it is the little extra efforts on everyone's part that make all the difference between mediocrity and success. [And our thanks to Mrs. Caron for a grand job, well done. We are sorry to lose her. Editor.]



BY NEWELL GREEN, APSA
64 Girard Ave., Hartford 5, Conn.

New England camera fans, 600 of them at least, had a chance on a Sunday in October to fill their negative files with countless shots of the way things used to be in bygone days—costumes, craftsmen, handicrafts, buildings and so on. It all happened when "The Photo Forum" of the Boston *Herald-Traveler* sponsored a field day at Old Sturbridge Village, in Sturbridge, Mass. Sturbridge Village is a restoration project, portraying the typical New England village of the early 1800's. There is a village green with a church at the head of it and ranged about are some 30 old buildings, including many shops where craftsmen ply their hand trades as once was common everywhere.

The day was given over to photographers, with studio lights set up in many of the interiors, and committee members to supervise the picture taking. There was a print show and contest, too, judged by Charles H. Vickery, of Pittsfield, H. W. Wagner, APSA, of Worcester, and Ramond J. LeBlanc, of Hartford, Conn. Everyone attending was eligible to enter a couple of prints and prizes were donated by dealers in Boston.

There is a member in Worcester, Mass., who makes a specialty of photographing celebrities. He has done over 50 of them in the past few months and all without stirring from his own living room! How? That's simple. He has a television, and he takes pictures of the screen when prominent artists, actors and public figures appear on it for close-ups. When he makes up the prints he sends a couple of them to the artist with the request that one be autographed and returned to him. He says he seldom gets refused and he is building up quite a collection.

We've never lived in Boston but surely there must be a number of advantages to living there. One of them would be the chance to take courses at the Boston CC. They have had a couple of them this fall which sound fine. One is a regular photographic course for advanced workers with eight lecture-demonstrations covering the usual subjects in negative and print making and given by Richard C. Cartwright. The other course is new, one in movie making by Joseph Rothberg, President of Dekko Film Productions. Mr. Rothberg has had 30 years of experience as a professional cameraman and will give six lectures on topics which will help the amateur make better movies.

The Portland (Me.) CC had a novel twist on a color competition, one in which

every member of the club could participate, even if he were not accustomed to shooting color film. It spread over three successive meetings, which was easy in the case of Portland since they meet every week. However, it would work just as well with a club that meets a couple of times a month. The one at Portland was both a demonstration and competition, under the direction of Roy Monroe. At the first session there was a set of lights and a model, all arranged for good color shots. The club provided the camera and color film, and everyone attending had a chance to pose the model and make an exposure. A week later Mr. Monroe processed the films before the club as part of a demonstration, and for the third meeting, the resulting transparencies were projected. The winners were selected by popular vote and cash prizes were awarded to the three top choices. Sounds like a good way to pep up the interest in color at any club.

By the time this appears in print there won't be many who haven't heard that Frank R. Fraprie, Hon. FPSA, has retired as Editor of *American Photography* after 50 years of service. John C. Bridges and Karl D. Arnold have taken over the magazine and plan to move the publication office to St. Paul. How queer it will seem not to have the dean of exhibitors publishing his famous magazine from Boston. Still with the tremendous impetus he has given to salon work and pictorial photography over these many years through his writing, his judging and his editorial work, we can hardly begrudge him his retirement. Just the same, we shall miss the active part he has always played.

John R. Hogan, FPSA, of Philadelphia, Cecil B. Atwater, FPSA, of Boston and Ralph E. Day will be the judges for the Twelfth Springfield International Salon sponsored by the George Walter Vincent Smith Art Museum and shown in its galleries during January. Over a period of years, this has become about the leading salon in New England and deserves an entry from every exhibitor in the section. Entries close December 6, and forms may be obtained from the Salon Secretary, George Walter Vincent Smith Art Museum, Springfield, Mass.

WHAT'S NEW

BY JACOB DESCHIN, APSA

The darkroom kit idea is being utilized by Anco to introduce beginners to photography. A Special Junior Press Photographer's outfit, selling at \$10.15, contains a box-type synchronized camera using 620 film, two batteries, four flash lamps and a "press" badge. The \$19.29 Anco Flash Clipper outfit comprises the Flash Clipper camera, a flash unit, case and four No. 5 flash lamps. A third kit, at \$23.84, holds the Rediflex camera, case, flash unit, six flash lamps, two rolls of 620 Anco Supreme film, a portrait attachment, flash unit and batteries.

Carl Zeiss, Inc., 485 Fifth Avenue, New York, announces a new Ikonflex II twin-lens reflex camera. The camera now features an all-glass Fresnel field lens for even light distribution and increased ground glass brilliance. It has built-in flash synchronization, is equipped with a coated Zeiss-Opton 75mm Tessar f/3.5 taking lens, and a coated f/3.5 Teronar viewing lens, and costs \$156.

Two new low-priced twin-lens reflex cameras are being put on the market by Royce Manufacturing Company, 1525 N. Ivar Street, Hollywood. One is the Royce Reflex, which sells for \$49.95, with a Wollensak Alpha shutter having built-in synchronization and a Wollensak f/4.5 anastigmat taking lens coupled with an f/3.5 viewing lens. It has a new type focussing ring, novel depth-of-field scale, easy back lock and other simple adjustments. Accessories are a \$1.95 Royce magnifier that fits on the camera hood for critical focussing, and a \$7.50 leather case.

The second Royce camera, which was scheduled at the time of this writing to be available in January, was to cost \$70, equipped with a Wollensak f/3.5 taking lens and f/3.2 viewing lens. It was to have an Alpha shutter with speeds to 1/200th of a second, built-in synchronization, and a new type viewing system. The latter was to incorporate semi-eye-level viewing as well as normal twin-lens viewing. The new camera was to use a field lens for increased ground-glass image brilliance.

A new 16mm still camera, the Tynar, was being readied for the market at this writing by the Tynar Corporation, of Los Angeles. The camera costs \$7.95, equipped with a three-element f/6.3 Tynar chromatic lens. The camera measures 1 1/2 inches high, 3 inches long and 5/8ths of an inch wide, weighing six ounces. Made of metal alloy, it loads 14 pictures to a daylight-loading cartridge. Four processing plants throughout the country will develop and print the 2 1/2 x 3 1/2-inch pictures. Cartridges will cost 50 cents, processing \$1. The tiny Tynar has three lens openings, f/6.3, f/11 and f/16; single-speed shutter; automatic film transport and shutter control; double-exposure prevention; automatic exposure counter.

The Tru-Val Folding Camera, with Schneider f/4.5 lens and taking eight 2 1/4 x 3 1/4 pictures on 120 film, 16 exposures 1 1/2 x 2 1/4 with mask, has been introduced by Tru-Val Camera Exchange, 1015 Sixth Avenue, New York. The price is \$39.95. Accessories are a leather ever-ready case at \$6.50, and a flashgun at \$7. Features include 10-speed Penton II shutter to 1/200th second; built-in self timer to 12-second delay; built-in flash, and focussing control visible from above.

The 4 x 5 Linhof Technika III, without range finder or lens, is now offered at \$169, about half its previous price, by Peerless Camera Stores, 138 East Forty-fourth Street, New York. At the same time, the company announces its appointment as exclusive United States distributor for all Linhof products. The camera now has a 4 x 5 American press back to take standard

Graphic type double film holders and film pack adapter. A choice of 16 lenses is available for the camera, from the 35mm Raptar in Rapax shutter to the 165mm Raptar in full synchronization shutter. With the first, the camera is \$199.50, with the second, \$250.

The Ansco Automatic Reflex Camera now incorporates an improved shutter synchronized for flash. The new price is \$287. Owners of early Ansco Reflex cameras may have synchronization added for \$24.50.

And have you heard that Bell & Howell's \$700 Foton 35mm miniature is now \$498?

Color

Early in 1950 you will see a "vest pocket" model Type B of the Spectra Color Temperature Meter. This compact, simplified and less expensive version of the original studio Spectra now being used in Hollywood and by commercial photographers, will cost about \$50. The Spectra was designed by Karl Freund, president of Photo Research Corporation, 127 W. Alameda Avenue, Burbank, Calif.

The Spectra is a direct-reading meter, which is pointed at the source of illumination, whether a lamp or the sky, though exact aiming is not necessary. After rotating a ring on the meter until an indicating needle is brought to zero, the photographer reads from a scale either the color temperature in degrees Kelvin or the number of the filter required to bring the light into balance with the color film being used.

The meter has four scales, one of which reads in degrees Kelvin from 2600 to 10,000. The other three scales are for use with Daylight color film, Type A and Type B, each scale reading directly in filter numbers. The Spectra is designed to work with CT filters marketed by the meter manufacturer or, through a conversion table, with Eastman's CC filters and the Harrison and Harrison filters.

The Spectra filters will consist of six bluish and six yellowish filters. They will be cemented between optically flat glass and will be coated. They will be sold in all the popular series sizes, the price depending on the filter size.

Another Photo Research product is the neutral-density Spectra Color Contrast Viewing Glass for judging contrast and lighting in scenes to be photographed in color. The \$2.95 device is mounted in a convenient frame of anodized aluminum 1 1/2 inches in diameter, with a handle of the same material, and a neck cord.

The new 2 x 2 slide projectors are the LaBelle "500" at \$79.50 and the Spencer Delineascope at \$98.50. The first, made by LaBelle Industries, of Oconomowoc, Wisc., features automatic magazine loading and has an f/3.5 coated lens, two magazines and a store-away case, turbine blower cooling, and a 500-watt projection lamp capacity. A shutter briefly blacks out the screen between slides. A warming chamber preconditions slides for safe projection.

The Delineascope, the latest American Optical Company product, uses a 300-watt lamp, a 5-inch f/3.5 lens and takes slides and slidefilm interchangeably. It has fan

cooling, aspheric condenser for edge-to-edge screen image coverage, elevating lever for centering the image on the screen, a slidefilm unit that slips easily in and out of the projector.

A unique projection system, which uses an elliptical-shaped reflector of rhodium-plated copper instead of the conventional condensers, is incorporated in an overhead projector for 4 x 5 to 8 x 10 transparencies. The new Scriber Visualizer, designed primarily for use in visual education, is made by the Visual Scriber Corporation, 1525 N. Ivar Street, Hollywood. The \$270 outfit, the first projector for large-size transparencies, houses in a compact 35-pound unit, the reflector, a 500-watt lamp, a three-element anastigmat projection lens and a first-surface mirror positioned at an angle to the lens to project the transparency image onto a large screen area.

Kodak Color Compensating Filters are now so designated that the name of the filter explains its characteristics. For example: CC-20Y. CC means Color Compensating; 20 means the filter has a density of 20 (the decimal point is omitted in the name), and Y indicates the color of the filter, which in this case is Yellow.

Flash

The lead item here is the announcement by General Electric's Lamp Department that flash lamp prices have been reduced. The principal item on the list is the popular No. 5 midjet lamp, which was dropped in price from 14 to 12 cents each. The No. 22B lamp was also cut two cents. The No. 11 and No. 22 lamps were reduced one cent. These and the No. 5 represent 90 per cent of the demand for G.E. flash lamps. Photoflash lamps were first introduced commercially in this country by General Electric in 1930, thereby greatly extending the range of amateur and professional photography as well as pictorial news reporting.

Kalart has news in the synchronizer field. It's about a two-inch-square unit for cameras with accessory shoes and built-in synchronization. The new synchronizer, which is powered by two C-type cells, clips into the accessory shoe of the Kodak Tourist and the Polaroid Land Camera. The price is \$8.95. Another Kalart item is a 20-foot flash extension cord consisting of a spring clamp, a midjet-type concentrating reflector with a built-in test light which automatically turns off when a bulb is inserted, and 20 feet of electric cord. The unit is light in weight, comes apart for storing, can be used with most battery cases and costs \$10.95.

Tiffen Manufacturing Corp. has just introduced the new Daylight Flash (2B) Tiffen Photar Color Correction Filter for taking indoor flash pictures with outdoor type color film. The filter combines a conversion filter and a color correction filter, eliminates the use of blue bulbs and has an exposure factor of 2x (one stop). The price, depending on size, ranges from \$1.35 to \$8.

Low-voltage electronic flash units designed for flash durations of 1/125th of a

second to 1/500th, are announced by Lumax Manufacturing Company, 489 Sixth Avenue, New York. The units operate from a battery or AC at voltages below 500 and cost from \$60 to \$250. The \$60 unit is a plug-in model. The "Semi-Pro" at \$125, which works at 1/500th second, appears to be the most useful for general purposes. The new Lumax units were introduced for the photographer who does not require the very high speeds of regular electronic flash equipment, but appreciates the convenience of such units.

New flashlamp color-dipping solutions have been introduced by Alkon Photo Products, Inc., 230 East 124th Street, New York. They are Alkote Blue, for use with daylight type color film, and Alkote Amber, for tungsten type. A four-ounce bottle, with a dipping beaker for midjet lamps, is \$1.50 and will coat 400 lamps.

Polaroid Land Camera representatives recently showed black-and-white prints and enlargements copied from Land Camera originals. This is a new service for owners of these cameras who want additional prints but who do not like the sepia color of the originals. The black-and-white or sepia same-size prints sell for two for a quarter; the enlargements, which are 5 x 7 inches, black-and-white or sepia, are 75 cents each.

Kodak are now installing the Ektalite Field Lens in the Kodak Reflex I twin-lens camera. Owners of this model may now have the lens installed for \$10, this price covering the addition of a new camera name plate, and refocusing and adjusting the viewing system. Installation is to be done by Kodak at Rochester on order through dealers.

Darkroom

Two new Kodak enlargers highlighted the 1949 trade show held in San Francisco by the Master Photo Dealers and Finishers Association. They were the Kodak Fluorolite and the Kodak Hobbyist, both incorporating a new type of enlarging light source, the integrating sphere. This is an optical principle by which the inside of a hollow sphere is coated with a highly reflective white paint. The light rays from a lamp burning inside the sphere are reflected again and again until all the light is evenly distributed.

The result is a combination of a condenser and diffusion-type enlarging illumination enclosed in a lamphouse which utilizes a circular "cold light" lamp. The latter is a new, 22-watt, 8½-inch circular fluorescent unit, said to be the equal of a 150-watt lamp in an efficient condenser enlarging system. The design of the lamp-house and the enlarger head is such that no direct rays from the lamp ever reach the negative.

The Fluorolite (\$112.50 without lens) is a 2¼ x 3¼ enlarger so designed that with accessory attachments it also may be used as a view camera and for making copies, slides, movie titles or extreme close-ups, and a number of other specialized purposes. Its features include distortion control, bi-rail, diamond-shaped frame, a built-in nega-

tive and paper storage compartment with a spring-actuated door, rotating negative carriers, accessory color head, and a choice of 2, 3 and 4-inch f/4.5 Kodak enlarging Ektanon and Ektar lenses.

The Hobbyist enlarger, which sells for \$47.50 equipped with a Kodak enlarging Ektanon f/6.3 lens with click stops, is designed to be easily disassembled for storage. It features an inclined column. Both the Fluorolite and the Hobbyist have the same type of lamp and lamphouse design.

A new-type 5 x 7 enlarging camera based on electronic principles, the Electro-Focus Enlarger, invented by Mark Kohesnikoff, photographer and engineer, is being introduced by Hollywood Television Enterprises, Inc., of Hollywood. The \$450 enlarger is automatically focused by micro-switch control. A red light goes on when the enlarger has been adjusted for the desired picture size, a green light goes on when the image is in focus on the easel. The enlarger uses a 400-watt flood lamp, and has a blower cooling system, a new-type negative holder and a negative masking device. It will be equipped with an 8-inch lens.

Now all you need to make an enlarger is your 4 x 5 press camera and the latest thing from the Aristo Grid Lamp Products plant, 106-23 Metropolitan Ave., Forest Hills, N. Y. It's the Aristo Cold Light Pack, which is so designed that a 4 x 5 press-type camera may be converted into an enlarger within two minutes. Especially useful for making enlarged pictures on field trips or on other occasions when the photographer is away from his darkroom, the unit comprises an Aristo Cold Light unit, an adapter frame, a diffuser element and a glassless negative holder. An ordinary tripod with a tilting head may be used for supporting the assembly. The complete outfit sells for \$38.75.

Aristo has another useful bit of news, to wit, about an Aristo Cold Grid Lite unit for 2¼ x 3¼ enlargers. The unit is contained in an aluminum housing, produces even illumination, does not discolor during its life of 6,000 burning hours and consumes 18 watts. The unit is quickly installed and can be used with any switch or timing device on AC current, starting instantly at the flick of a switch.

For the beginner and the budget-minded there's an \$8.98 (plus Federal tax) Airequipt Junior Print Box. This newest product of the Airequipt Manufacturing Co., Inc., in New Rochelle, N. Y., features negative sizes 35mm to 4 x 5 and postcard sizes; calibrations for margins from 3/16th inch to 5/8ths; top and left-hand margins set simultaneously; high diffusion glass; felt-covered split platen; automatic switch; finger-tip pressure to open and close the cover; stainless steel sliding masks; all-steel construction.

Movies

Kodak sends news about a brand new Kodascope Eight-71 Projector, supplied with a Lumenized 1-inch, f/1.6 Kodak Ektanon Projection Lens and a 750-watt lamp and costing \$97.50. A 1,000-watt lamp may also be used. Features of the

new projector include an improved cooling system, with baffles in the aperture and condenser systems; a new-type safety shutter operated by air pressure, and a molded rubber drive belt. Other features are 400-foot reel capacity; fingertip control; all major controls on central panel, and an accessory new-type carrying case with a removable front.

An extremely fast wide-angle 16mm movie lens, the new Elgett 15mm f/1.5, has been developed by Elgett Optical Company, Inc., Rochester 7. The price is \$88.95. The new lens has seven coated optical elements, assuring fine definition over a large area; a hood fitted with a filter retaining ring for the Series VI filters; an engraved depth-of-field scale and click diaphragm stops.

New movie cameras have been placed on the market by the Revere Camera Company, Chicago, and the Keystone Manufacturing Company, Boston. The Revere line includes the \$62.50 8mm Ranger equipped with a 15mm f/2.5 universal-focus coated lens and features such as easy threading, five operating speeds, interchangeable lens mount, an adjustable footage meter, a built-in view finder and a simple sprocket that forms a film loop automatically along a clearly shown path. With a 15mm f/1.9 coated lens in focussing mount, the camera is \$87.50.

Revere also has introduced the 8mm "77" magazine camera at \$87.50, with 12.7mm f/2.8 universal focus coated lens. With a 15mm coated f/1.9 lens in focussing mount, the price is \$112.50; with a ½-inch coated f/1.9 universal focus lens, \$94.50. The camera has continuous run, single frame exposure for titles and trick shots and built-in telescopic view finder.

Keystone has three new 16mm rollfilm movie cameras. The Keystone A-12, with a twin-lens turret, has a built-in wide angle view finder, plus three other matched view finders which automatically fall into position as the turret is rotated; separate trigger for still pictures; seven speed adjustments and built-in exposure guide. The price is \$98, with f/2.5 Wollensak lens; \$129.50 with coated f/1.9 Wollensak focusing-mount lens. The Model A-9 is a single-lens version of the A-12, and sells for \$74.50 with Wollensak f/2.5 lens, and for \$106 with the Wollensak f/1.9 lens. The Keystone A-7, with Wollensak f/3.5 coated lens, is equipped with an f/3.5 lens and sells for \$64.50.

A "Fold-Away" Base has been introduced by Craig Manufacturing Company, Los Angeles, for their line of Projecto-Editors. The new folding base allows the entire Projecto-Editor combination of re-winds, splicer, etc., to be folded into a small case for easy portability or storing.

Miscellaneous

Two new light sources have been introduced by General Electric, a 375-watt photoflood lamp, which provides subject lighting equal to that of the 500-watt RFL No. 2 lamp; and a 750-watt intermittent burning photoflood lamp for use in high speed motion picture photography. The

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the second preceding month before publication.

Wanted—35mm Printer, continuous or step type for experimental use. Give make, type, condition and price. A. N. Brostrom, 2454 Hutchinson St., Chicago 18, Illinois.

For Sale—Wollensak Velostigmat wide angle, series III f 9.5 8x10 Betex No. 3 in perfect condition. \$40.00. Benjamin H. Schlomberg, 33-01 146th Street, Flushing, N. Y.

For Sale—Viewer in barrel 15mm adjustable to 152mm, good on football work, \$50.00. Reflex viewer for Cine Kodak Special 16mm camera, \$65.00. 15mm Viewer for Cine Special, \$7.50. Model I Mask-on Viewer, \$7.50. J. E. Wallace, 2220 Wrocklage, Louisville, Kentucky.

For Sale—Solar 5x7 enlarger, suitable for 4x5 and Omega D II. Both enlargers with or without lenses. Detrola camera f 3.5. General Electric and Skan meters (used). James Taneyville, Brodhead, Wisconsin.

For Sale—\$15.00 series V filters; Portrait 1-2-3, Polaroid, Haze, Kodachrome A. leather case set yellow-Haze-A. Shade and adapter ring. Leo L. Duncan, 46051 Crenshaw, Los Angeles, California.

Wanted—Kine Exacta 35mm reflex camera, f 3.5 Tessar lens, also telephoto lens, adapter rings and shade. P. E. Biggar, Bloomfield Hills, Michigan.

For Sale—Auto Rollei, Xenar, A-1. \$165. Justin Hartley, Colchester, Conn.

Wanted—Leica or Contax with good lens. Also wide angle and telephoto. Arthur Rich, 645 West End Ave., New York, N. Y.

For Sale—12 reducing sheaths for 3 1/2 x 4 1/2 film holders to take 2 1/4 x 3 1/4 film. Like new—\$2.50. James F. Kemp, Danbury, Iowa.

latter is seven to 15 times brighter than sunlight and permits taking up to 8,000 individual pictures per second. The 375-watt lamp is for use in two- and four-lamp brackets which attach to the camera, thus permitting the safe amateur use of 1,500 watts in a four-lamp unit compared to the 2,000 watts of four of the old lamps. Powell Products are the first hand-bracket manufacturers to use the new lamps in a new model of the four-lamp Senior Powellite.

News from the Polaroid Land Camera front is double-edged. More film and a special Polaroid mount for picture-in-a-minute snapshots. Doubling of the company's film production capacity has resulted in the policy of normal over-the-counter purchasing of film. The original policy of reserving a monthly supply of six rolls for each camera owner will continue, however. It is also noted that the quality of the film has been improved, extending both the white and the darker sepia tone scale.

The mount is a special professional type and sells at \$1 for a pack of ten mounts. The mount may be used flat or in standing position, vertical or horizontal, and fits a standard No. 10 envelope. The mounts are light ivory in color, of sturdy cardboard with an antique laid finish, are supplied with adhesive and are hinged at one end for easy insertion of the picture.

Anso sends three items. There's an improved Superpan Press film, available in sheet film sizes only. Features are better gradation and wider development latitude plus adaptability to all commonly used light sources including incandescent, fluorescent, normal flash and high-speed lamps. The price and film speed of 125 Weston remain the same.

Secondly, Anso Supreme fine-grain panchromatic and Anso Ultra-Speed Pan high-speed film for 35mm cameras have been made available in 20-exposure loadings in addition to the regular 36-exposure lengths. Thirdly, Anso has put out new printings of two Anso booklets, "Better Photography Made Easy" and "Developing and Printing Made Easy." Easy, too, is the price: 25 cents a copy at dealers.

The long-awaited Revere Magnetic Tape Recorder is now here, offering possibilities for use with home screenings of amateur movies and priced reasonably at \$159.50. Designed for simplicity of operation and faithful sound reproduction, the recorder comes complete with microphone, radio attachment cord, two reels (including one with tape), and handsome carrying case. Extra reels of the hour-long recording capacity Scotch magnetic plastic tape are \$3.50, paper tape \$2.50.

'Tain't So Department

If you've heard that Remington Rand, Inc., 815 Fourth Avenue, New York 10, have quit the photographic paper business, then you're far from the truth. William P. Southard, sales promotion manager of the company's Photo Records Division, writes:

"On the contrary, we intend to increase our activity in this field and to improve our merchandising methods. . . . And as a matter of fact, we have just cleared new stocks of RRembrandt to our distributors for release to both amateur and professional photographers."

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State of Pennsylvania } ss:
County of Philadelphia }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Fred Quellmalz, Jr., who, having been duly sworn according to law, deposes and says that he is the Editor and Business Manager of the *PSA Journal* and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management and of a daily paper, the circulation, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1915, embodied in section 557, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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